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Mr. James Saric
Remedial Project Manager
USEPA Region 5
77 West Jackson Boulevard (SR-6J)
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Subject:
Kalamazoo River SRI Phase 2 Sediment Core Analyses Plan

Dear Mr. Saric:

On July 15, 2008 representatives of the United States Environmental Protection Agency (USEPA), Michigan Department of Environmental Quality (MDEQ), National Oceanic and Atmospheric Administration (NOAA), and Kalamazoo River Study Group (KRSG) met in Chicago, IL to discuss, among other topics, a proposed plan for analysis of frozen sediment cores collected in fall 2007 from Area 1 of the Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site (Site). KRSG originally submitted a work plan describing this effort to USEPA on June 10, 2008. At the July 15 meeting, the Agency representatives requested clarification of the basis for the selection of cores for polychlorinated biphenyl (PCB) analysis and more information on the process used to classify cores as fine or coarse sediment. After reviewing initial Agency comments, KRSG submitted a revised work plan to USEPA on August 21, 2008. MDEQ provided written comments on September 19, 2008 and USEPA provided a final version of comments in a letter dated October 15, 2008. These comments have been addressed in this revised work plan, which supersedes the August 21, 2008 version.

As outlined in the *Supplemental Remedial Investigation/Feasibility Study Work Plan – Morrow Dam to Plainwell* (ARCADIS BBL 2007a; Area 1 SRI/FS Work Plan), the list of sediment cores selected for laboratory analysis must be approved by USEPA. This revised letter work plan describes a core analysis plan for Area 1 of the Kalamazoo River.

Work Plan Objective

The objective of the efforts described in this work plan is to analyze selected samples from the cores collected in 2007 to provide additional information and document current PCB levels in Kalamazoo River sediments, which is identified as a main objective in the USEPA-approved Area 1 SRI/FS Work Plan (ARCADIS BBL 2007a).

SEDIMENTS

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Analysis of selected cores will provide additional information on PCB spatial distribution and mass inventories to that existing based on prior sampling efforts.

Background

In fall of 2007, a total of 16 new transects in the Kalamazoo River were probed and cored as part of the Phase 1 investigation outlined in Sections 3.4.1.1 and 3.4.1.2 of the Area 1 SRI/FS Work Plan (ARCADIS BBL 2007a). Ten of these transects were located between the former Georgia-Pacific Corporation Kalamazoo Mill (Georgia-Pacific Mill) and the Crown Vantage Landfill, with the remaining six transects between the Plainwell No. 2 Dam and Mill Race Confluence. A total of 118 cores from this effort were photographed, classified as fine or coarse sediments (as described below), and are currently in frozen storage. Descriptions of the cores are provided in Table 1.

Between the former Georgia-Pacific Mill and the Crown Vantage Landfill, sediment probing and core collection was performed at eight locations along each of 10 transects. The Area 1 SRI/FS Work plan states that approximately 30 cores from this area (an average of three cores per transect) will be selected for laboratory analysis.

From the Plainwell No. 2 Dam area and the Mill Race confluence, sediment probing and core collection was performed at eight locations along each of six transects. The Area 1 SRI/FS Work Plan calls for approximately 18 cores to be analyzed from this area. All sediment probing data are summarized in Tables 1, 2, and 3 of this work plan.

For purposes of core selection for analysis, sediment type at each core location was classified as either coarse or fine. This classification was based on the physical description recorded in the field logs at the time of core collection, which are summarized in Table 3. These descriptions were recorded by observing sediment texture, color, and stratigraphy through the side of the Lexan core tube. Two ARCADIS scientists independently reviewed each core description, and classified cores on a 0 to 5 numeric system. These same individuals have performed classification of the vast majority of sediment samples previously collected at the Site. In this system, 0 represents rock and gravel, and 5 represents silts and organic matter. Cores were rated based on the sediment characteristics described in the field notes, and included any layers or banding present in the core. The two independent ratings were compared, and cores for which the two ratings did not agree were re-examined, and the scientists jointly assigned a number. Previous examination of this method indicates this rating is performed consistently and results in a good

separation of fine and coarse designations, with some overlap (Brown 1997)¹. Transitional cores (i.e., those containing a relatively even mixture of fine and coarse materials) typically fall in the overlap between fine and coarse designations, and the classification of these cores in the numeric system tends to have the most subjectivity. However, most cores can be clearly classified as fine or coarse, and the inherent subjectivity of transitional core classification does not greatly impact the validity and usefulness of the core classification system. Further use of the fine and coarse designations for sediments after analysis depends, in part, upon use objectives. The use objectives for these core classifications may incorporate an opportunity for reclassification of these samples based on a protocol to be developed jointly by KRSG and USEPA, as discussed at the July 15, 2008 meeting in Chicago.

The Area 1 SRI/FS Work Plan specifies that approximately 75 percent of cores selected for analysis will be from fine-grained sediments, with the remaining 25 percent from coarse sediments. During the meeting held July 15th in Chicago, USEPA and MDEQ emphasized that the goal of including approximately 75 percent fine sediment locations should not be interpreted as a minimum number of fine sediment samples and that if insufficient fine sediment locations were identified, that a reasonable number of fine sediment locations should be targeted even if it results in somewhat less than 75 percent of the total number of sample locations. Because relatively few probing locations were classified as fine-grained in Phase 1 activities, the proposed selection of cores (as outlined below) collected between the Georgia-Pacific Mill and the Crown Vantage Landfill results in 63 percent from fine-grained sediments and 37 percent from coarse-grained sediments, and 28 percent from fine-grained sediments and 72 percent from coarse-grained sediments from the Plainwell No. 2 Dam to the Mill Race Confluence.

Selection of Proposed Core Locations

Georgia-Pacific Mill to Crown Vantage Landfill

A total of 30 cores collected from this reach – 19 classified as fine-grained and 11 classified as coarse-grained – were selected for PCB analysis. Approximately three cores from most transects were selected for analysis in an effort to evenly distribute

¹ Brown, M. 1997. Letter from Mark P. Brown (Blasland, Bouck and Lee, Inc.) to Scott Cornelius (MDEQ) re: Kalamazoo Sediment Particle Size Analysis, Project #. 645.24.112. December 1, 1997. Letter is included here as Attachment 1.

cores throughout the reach. Table 4 summarizes the selected cores by river reach, and Table 5 lists the selected cores. Figures 1 and 2 show the locations and classifications of all cores collected during Phase 1 activities, and Figures 3 and 4 show the locations and classifications of cores selected for analysis.

Plainwell No. 2 Dam to Mill Race Confluence

In this reach, a total of 18 cores – approximately three from each transect – were selected for PCB analysis. All five cores described as fine-grained were selected (28 percent of the total); the other 13 were classified as coarse-grained sediments (72 percent). Table 6 displays a breakdown of the selected core locations by river reach, and Table 7 provides a summary of cores selected for analysis. Figure 5 shows the locations and classifications of all cores collected during Phase 1 activities, and Figure 6 shows the locations and classifications of cores selected for analysis.

It is possible that cores initially thought to be representative of fine or coarse sediments may reclassified upon visual inspection of the opened core using the Unified Soil Classification System (USCS). This could result in fewer samples being obtained from fine sediments than intended because all cores described as fine-grained sediments are currently targeted for analysis. If some of the selected fine sediment cores are reclassified upon inspection with USEPA and MDEQ oversight personnel, the available cores in storage will be reviewed to see if there are any suitable replacements and if so, those would be substituted in consultation with oversight personnel.

SEM/AVS and TCL/TAL Analysis

As specified in the Area 1 SRI/FS Work Plan, sediment samples from two cores from each reach (determined as approved by USEPA) will be submitted for laboratory analysis of Total Compound List/Total Analyte List (TCL/TAL) constituents, and the surficial interval from these cores will also be analyzed for simultaneously extracted metals/acid volatile sulfide (SEM/AVS). Fine-grained cores from locations KRT2-6, KRT9-8, KRT13-8, and KRT16-8 (core descriptions are provided in Table 1) are proposed for TCL/TAL and SEM/AVS analysis. These cores were selected from the upper and lower ends of each of the two main reaches in Area 1 to provide more extensive characterization. KRT16-8 was also selected to further examine the gray materials noted in this core (as presented in Table 1). Based upon texture data and sediment distribution along the transects, these core locations are believed to be most representative of fine-grained sediments present in this part of Area 1. Cores for TCL/TAL and SEM/AVS analysis are noted on Tables 5 and 7. If based on further

inspection, these cores are determined to not be representative of sediments in these reaches, alternate cores may be selected, in consultation with the Agencies, for SEM/AVS analyses.

All sediment cores will be processed and analyzed in accordance with the methods and protocols in the USEPA-approved Area 1 SRI/FS Work Plan and the Multi-Area Field Sampling Plan (ARCADIS BBL 2007b).

Schedule

Contingent on USEPA approval of this work plan and availability of USEPA oversight, ARCADIS is currently anticipating starting core sectioning activities on December 1, 2008. It is estimated that processing of these cores will take approximately five days.

Sincerely,

ARCADIS



Michael J. Erickson, P.E.
Associate Vice President

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Enclosures:

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- Figure 6 – Sediment Samples to be Analyzed for Total PCBs – Upstream of Plainwell No. 2 Dam to Mill Race Confluence

Attachments

- Attachment 1 – 1997 Kalamazoo Sediment Particle Size Analysis Letter

References

ARCADIS BBL. 2007a. *Supplemental Remedial Investigation/Feasibility Study Work Plan – Morrow Dam to Plainwell*. February 2007.

ARCADIS BBL. 2007b. *Multi-Area Field Sampling Plan*. October 2007.

Brown. 1997. Letter from Mark P. Brown (BBL) to Scott Cornelius (MDEQ) re: Kalamazoo Sediment Particle Size Analysis. December 1, 1997.

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Tables

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Kalamazoo River SRI Phase 2 Sediment Core Analyses Plan

Table 1 – Sediment Core/Probing Data - Kalamazoo River Transects

| Transect | Location ID | Water Depth (ft) | Probing Depth (ft) | Sediment Penetrated (ft) | Sediment Recovered (ft) | Texture Class | Depth Interval (ft) | Sediment Description |
|----------|-------------|------------------|--------------------|--------------------------|-------------------------|---------------|---------------------|---|
| KRT1 | KRT1-1 | 0 | 2.8 | 0.80 | 0.45 | Coarse | 0 - 0.45 | Gray Brown Fine to Medium Sand, Little Coarse Sand |
| KRT1 | KRT1-2 | 3.9 | 5.0 | 3.4 | 2.3 | Coarse | 0 - 1.3 | Dark Gray Brown Fine to Medium Sand, Trace Organics |
| | | | | | | | 1.3 - 2.3 | Dark Gray Brown Fine to Coarse Sand |
| KRT1 | KRT1-3 | 3.7 | 1.7 | 2.3 | 1.8 | Coarse | 0 - 0.10 | Dark Gray Very Loose Silt |
| | | | | | | | 0.10 - 1.0 | Dark Gray Brown Fine to Medium Sand |
| | | | | | | | 1.0 - 1.8 | Dark Gray Brown Fine to Coarse Sand |
| KRT1 | KRT1-4 | 3.0 | 0.6 | 1.9 | 1.4 | Coarse | 0 - 1.4 | Gray Brown Fine to Medium Sand, Little Fine to Medium Gravel, Trace Coarse Sand, Trace Silt |
| KRT1 | KRT1-5 | 2.1 | 2.7 | 2.9 | 1.8 | Coarse | 0 - 0.50 | Gray Brown Fine to Medium Gravel, Trace Fine to Coarse Sand |
| | | | | | | | 0.50 - 1.8 | Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel |
| KRT1 | KRT1-6 | 3.2 | 1.8 | 2.0 | 1.7 | Coarse | 0 - 0.60 | Gray Brown Fine Sand, Trace Silt |
| | | | | | | | 0.60 - 1.3 | Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel |
| | | | | | | | 1.3 - 1.7 | Gray Brown Fine to Medium Gravel, Trace Light Gray Clay Like Material |
| KRT1 | KRT1-7 | 4.1 | 1.9 | 2.9 | 2.3 | Coarse | 0 - 2.1 | Orange Brown Grading to Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel |
| | | | | | | | 2.1 - 2.3 | Dark Gray Brown Fine to Coarse Sand, Little Fine to Medium Gravel |
| KRT1 | KRT1-8 | 2.5 | 0.0 | 2.9 | 2.7 | Coarse | 0 - 1.0 | Light Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 1.0 - 1.1 | Light Gray Brown Fine to Coarse Sand, Little Fine Gravel |
| | | | | | | | 1.1 - 1.7 | Light Gray Brown Fine to Medium Sand |
| | | | | | | | 1.7 - 1.8 | Brown Root (Wood) |
| | | | | | | | 1.8 - 2.7 | Light Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel At Bottom |
| KRT2 | KRT2-1 | 0 | 3.5 | 3.0 | 2.1 | Coarse | 0 - 1.1 | Dark Gray Brown Fine Sand, Little Silt |
| | | | | | | | 1.1 - 2.1 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| KRT2 | KRT2-2 | 5.2 | 6.0 | 6.0 | 5.4 | Coarse | 0 - 4.1 | Brown Grading to Dark Gray Fine to Medium Sand |
| | | | | | | | 4.1 - 5.2 | Gray Fine Sand/Silt |
| KRT2 | KRT2-3 | 3.8 | 7.8 | 7.0 | 6.1 | Coarse | 0 - 3.6 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 3.6 - 5.0 | Gray Brown Grading to Dark Gray Brown Fine Sand |
| | | | | | | | 5.0 - 6.1 | Dark Gray Brown Fine Sand/Silt |
| KRT2 | KRT2-4 | 2.3 | 7.7 | 5.3 | 4.5 | Coarse | 0 - 2.5 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 2.5 - 3.3 | Gray Brown Fine Sand/Silt |
| | | | | | | | 3.3 - 4.5 | Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine Gravel, Trace Organics (Wood) |
| KRT2 | KRT2-5 | 1.3 | 6.2 | 4.3 | 3.5 | Coarse | 0 - 2.4 | Gray Brown Fine to Medium Sand, Trace/Little Coarse Sand |
| | | | | | | | 2.4 - 3.5 | Gray Fine Sand/Silt |
| KRT2 | KRT2-6 | 2.6 | 3.4 | 2.8 | 2.3 | Fine | 0 - 0.60 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 0.60 - 2.3 | Gray Brown Fine Sand/Silt |

Kalamazoo River Study Group
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
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Table 1 – Sediment Core/Probing Data - Kalamazoo River Transects

| Transect | Location ID | Water Depth (ft) | Probing Depth (ft) | Sediment Penetrated (ft) | Sediment Recovered (ft) | Texture Class | Depth Interval (ft) | Sediment Description |
|----------|-------------|------------------|--------------------|--------------------------|-------------------------|---------------|---------------------|--|
| KRT2 | KRT2-7 | 3.2 | 1.4 | 1.1 | 0.90 | Fine | 0 - 0.70 | Gray Brown Fine Sand/Silt |
| | | | | | | | 0.70 - 0.90 | Gray Brown Fine to Medium Gravel, Trace Fine to Coarse Sand |
| KRT2 | KRT2-8 | 0 | 5.5 | 4.2 | 3.1 | Fine | 0 - 0.50 | Dark Brown Fine Sand, Trace Silt |
| | | | | | | | 0.50 - 3.1 | Dark Gray Brown Fine Sand/Silt |
| KRT3 | KRT3-1 | 0.75 | 1.0 | 1.2 | 1.1 | Fine | 0 - 0.90 | Gray Brown Fine Sand/Silt |
| | | | | | | | 0.90 - 1.1 | Fine to Medium Gravel, Trace Fine to Medium Sand |
| KRT3 | KRT3-2 | 3.6 | 4.6 | 3.6 | 2.9 | Coarse | 0 - 0.50 | Dark Gray Brown Fine Sand, Little Silt |
| | | | | | | | 0.50 - 1.9 | Gray Fine to Medium Sand, Little Coarse Sand |
| | | | | | | | 1.9 - 2.5 | Gray Fine to Medium Sand, Little Coarse Sand, Little Silt |
| | | | | | | | 2.5 - 2.9 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| KRT3 | KRT3-3 | 5.3 | 2.7 | 2.4 | 2.0 | Coarse | 0 - 0.40 | Brown Fine Sand/Silt |
| | | | | | | | 0.40 - 2.0 | Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace/Little Fine to Medium Gravel |
| KRT3 | KRT3-4 | 6.4 | 1.5 | 1.2 | 0.80 | Coarse | 0 - 0.80 | Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel 0.6-0.8 Ft |
| KRT3 | KRT3-5 | 8.2 | 1.5 | 1.5 | 1.2 | Coarse | 0 - 0.50 | Gray Brown Fine to Medium Sand, Little Coarse Sand |
| | | | | | | | 0.50 - 1.0 | Gray Brown Fine to Medium Gravel, Little Fine to Coarse Sand |
| | | | | | | | 1.0 - 1.2 | Gray Brown Fine to Medium Sand |
| KRT3 | KRT3-6 | 6.3 | 1.3 | 0.80 | 0.50 | Coarse | 0 - 0.50 | Gray Brown Fine to Coarse Sand, Little/Some Fine to Medium Gravel |
| KRT3 | KRT3-7 | 3.1 | 2.7 | 2.3 | 2.1 | Coarse | 0 - 0.50 | Dark Brown Very Loose Fine Sand/Silt |
| | | | | | | | 0.50 - 2.1 | Light Gray Fine to Medium Sand, Trace Coarse Sand |
| KRT3 | KRT3-8 | 0.55 | 4.6 | 2.6 | 2.2 | Fine | 0 - 1.4 | Dark Brown Fine Sand/Silt |
| | | | | | | | 1.4 - 2.2 | Light Gray Fine to Medium Sand Grading to Light Gray Fine to Coarse Sand, Little Fine to Medium Gravel At 1.9 ft |
| KRT4 | KRT4-1 | 0.45 | 3.7 | 3.2 | 2.8 | Coarse | 0 - 0.80 | Dark Gray Brown Fine Sand/Silt |
| | | | | | | | 0.80 - 2.1 | Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 2.1 - 2.8 | Dark Gray Brown Fine to Coarse Sand Grading With Trace/Little Fine to Medium Gravel At ~ 2.5 ft |
| KRT4 | KRT4-2 | 1.9 | 7.1 | 6.0 | 4.5 | Fine | 0 - 0.50 | Dark Brown Find Sand And Silt |
| | | | | | | | 0.50 - 2.6 | Dark Gray Silt/Clay |
| | | | | | | | 2.6 - 3.3 | Dark Gray Brown Fine to Medium Sand, Little Coarse Sand |
| | | | | | | | 3.3 - 4.5 | Dark Gray Brown Fine Sand/Silt |
| KRT4 | KRT4-3 | 5.3 | 5.0 | 5.0 | 4.8 | Coarse | 0 - 0.80 | Gray Brown Fine to Medium Sand, Trace Silt |
| | | | | | | | 0.80 - 2.3 | Gray Brown Fine to Coarse Sand |
| | | | | | | | 2.3 - 3.6 | Dark Gray Brown Fine Sand, Trace Silt |
| | | | | | | | 3.6 - 4.8 | Brown Fine Sand |

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| Transect | Location ID | Water Depth (ft) | Probing Depth (ft) | Sediment Penetrated (ft) | Sediment Recovered (ft) | Texture Class | Depth Interval (ft) | Sediment Description |
|----------|-------------|------------------|--------------------|--------------------------|-------------------------|---------------|---------------------|--|
| KRT4 | KRT4-4 | 7.0 | 2.4 | 2.2 | 1.9 | Coarse | 0 - 0.10 | Brown Fine Sand |
| | | | | | | | 0.10 - 1.2 | Gray Brown Fine to Coarse Sand, Little/Some Fine to Medium Gravel |
| | | | | | | | 1.2 - 1.9 | Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel |
| KRT4 | KRT4-5 | 8.2 | 1.3 | 1.3 | 1.3 | Coarse | 0 - 0.50 | Brown Fine to Medium Sand, Little Coarse Sand |
| | | | | | | | 0.50 - 1.3 | Dark Gray Brown Fine to Coarse Sand, Little Fine to Medium Gravel |
| KRT4 | KRT4-6 | 3.7 | 3.5 | 3.5 | 3.4 | Coarse | 0 - 0.050 | Brown Loose Silt |
| | | | | | | | 0.050 - 0.80 | Gray Brown Fine to Medium Sand, Little Coarse Sand |
| | | | | | | | 0.80 - 1.3 | Brown Coarse Sand And Fine Gravel, Trace Fine to Medium Sand |
| | | | | | | | 1.3 - 3.4 | Dark Gray Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel |
| KRT4 | KRT4-7 | 4.6 | 0.9 | 0.50 | 0.30 | Coarse | 0 - 0.30 | Gray Brown Fine to Coarse Sand, Trace Fine Gravel |
| KRT4 | KRT4-8 | 1.5 | 2.1 | 1.8 | 1.7 | Coarse | 0 - 0.30 | Brown Fine to Medium Sand |
| | | | | | | | 0.30 - 1.7 | Light Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| KRT5 | KRT5-1 | 0 | 4.5 | 3.0 | 2.0 | Fine | 0 - 1.1 | Brown Fine Sand And Silt |
| | | | | | | | 1.1 - 2.0 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| KRT5 | KRT5-2 | 3.2 | 2.2 | 2.5 | 2.2 | Coarse | 0 - 0.80 | Brown Fine Sand/Silt |
| | | | | | | | 0.80 - 2.2 | Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel At 2.1-2.2 ft |
| KRT5 | KRT5-3 | 5.6 | 5.7 | 4.9 | 4.1 | Fine | 0 - 1.2 | Brown Loose Fine Sand And Silt |
| | | | | | | | 1.2 - 3.7 | Gray Fine Sand And Silt |
| | | | | | | | 3.7 - 4.1 | Gray Fine to Medium Sand, Trace Coarse Sand |
| KRT5 | KRT5-4 | 8.9 | 4.1 | 3.2 | 2.7 | Fine | 0 - 0.80 | Brown Fine to Medium Sand, Trace Organics |
| | | | | | | | 0.80 - 2.7 | Gray Fine Sand/Silt, Trace Organics |
| KRT5 | KRT5-5 | 9.9 | 3.7 | 3.5 | 2.8 | Coarse | 0 - 0.60 | Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 0.60 - 1.4 | Gray Fine Sand/Silt |
| | | | | | | | 1.4 - 2.8 | Gray Fine to Medium Sand, Little Coarse Sand |
| KRT5 | KRT5-6 | 9.7 | 4.2 | 3.0 | 2.6 | Coarse | 0 - 0.50 | Brown Fine to Coarse Sand |
| | | | | | | | 0.50 - 1.3 | Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 1.3 - 2.1 | Gray Fine Sand/Silt |
| | | | | | | | 2.1 - 2.6 | Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| KRT5 | KRT5-7 | 7.5 | 3.3 | 3.0 | 2.3 | Coarse | 0 - 0.10 | Brown Loose Silt, Trace Organics |
| | | | | | | | 0.10 - 0.30 | Brown Fine to Medium Sand, Little Coarse Sand |
| | | | | | | | 0.30 - 1.1 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 1.1 - 1.7 | Gray Fine Sand/Silt, Trace Organics (Wood) |
| | | | | | | | 1.7 - 2.3 | Gray Brown Fine to Medium Sand |
| KRT5 | KRT5-8 | 1.7 | 3.0 | 1.5 | 1.2 | Coarse | 0 - 0.50 | Dark Brown Fine to Medium Sand, Trace Coarse Sand, Trace Organics |
| | | | | | | | 0.50 - 1.2 | Orange Brown Fine to Medium Sand, Trace Coarse Sand, Trace Gravel/Cobble (Tube Bottom Bent) |

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| Transect | Location ID | Water Depth (ft) | Probing Depth (ft) | Sediment Penetrated (ft) | Sediment Recovered (ft) | Texture Class | Depth Interval (ft) | Sediment Description |
|----------|-------------|------------------|--------------------|--------------------------|-------------------------|---------------|---------------------|--|
| KRT6 | KRT6-1 | 1.7 | 3.2 | 2.8 | 2.4 | Coarse | 0 - 0.50 | Dark Gray Brown Fine Sand, Trace Silt |
| | | | | | | | 0.50 - 2.4 | Gray Fine to Medium Sand, Trace Coarse Sand, Trace Silt |
| KRT6 | KRT6-2 | 5.0 | 5.5 | 4.5 | 2.9 | Fine | 0 - 1.8 | Dark Gray Brown Fine Sand And Silt, Trace Organics |
| | | | | | | | 1.8 - 2.9 | Gray Fine to Coarse Sand, Trace Fine to Medium Gravel |
| KRT6 | KRT6-3 | 7.3 | 4.7 | 3.8 | 3.2 | Coarse | 0 - 0.50 | Dark Gray Brown, Fine Sand, Trace Silt, Trace Organics |
| | | | | | | | 0.50 - 3.2 | Gray Brown, Fine to Medium Sand, Little Coarse Sand |
| KRT6 | KRT6-4 | 7.0 | 4.0 | 3.5 | 2.9 | Coarse | 0 - 2.3 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 2.3 - 2.6 | Gray Brown Fine to Medium Gravel |
| | | | | | | | 2.6 - 2.9 | Gray Brown Fine to Medium Sand, Trace Coarse Sand |
| KRT6 | KRT6-5 | 6.5 | 4.3 | 4.3 | 4.0 | Coarse | 0 - 2.4 | Gray Brown, Fine to Medium Sand, Trace Silt |
| | | | | | | | 2.4 - 4.0 | Light Gray Brown Fine to Coarse Sand |
| KRT6 | KRT6-6 | 5.0 | 2.1 | 1.9 | 1.8 | Coarse | 0 - 0.30 | Dark Gray Brown Fine Sand, Little Silt |
| | | | | | | | 0.30 - 1.6 | Orange Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 1.6 - 1.8 | Coarse Gravel |
| KRT6 | KRT6-7 | 2.0 | 2.6 | 2.5 | 1.9 | Fine | 0 - 1.9 | Dark Gray Brown Fine Sand And Silt, Trace Organics (Wood) |
| KRT6 | KRT6-8 | 0 | 1.8 | 2.0 | 1.4 | Fine | 0 - 1.4 | Dark Gray Brown Fine Sand And Silt, Trace Organics (Wood) |
| KRT7 | KRT7-1 | 0 | 2.9 | 2.4 | 1.9 | Fine | 0 - 0.20 | Gray Brown/Fine to Medium Sand/Trace Coarse Sand |
| | | | | | | | 0.20 - 1.9 | Dark Gray Brown/Fine Sand And Silt/Trace Organics (Shells) |
| KRT7 | KRT7-2 | 3.1 | 3.0 | 2.0 | 0.65 | Coarse | 0 - 0.65 | Gray Brown/Fine to Medium Sand/Trace Coarse Sand/Trace Fine to Medium Gravel |
| KRT7 | KRT7-3 | 3.1 | 3.7 | 3.0 | 2.9 | Coarse | 0 - 0.50 | Orange Brown/Fine to Medium Sand/Trace Coarse Sand |
| | | | | | | | 0.50 - 1.1 | Dark Gray Brown/Fine to Coarse Sand/Trace Silt |
| | | | | | | | 1.1 - 1.7 | Light Gray/Fine to Medium Sand/Trace Coarse Sand |
| | | | | | | | 1.7 - 2.9 | Brown/Fine to Medium Sand |
| KRT7 | KRT7-4 | 3.0 | 2.4 | 2.2 | 2.0 | Coarse | 0 - 0.60 | Brown/Fine to Medium Sand/Trace Coarse Sand/Trace Fine to Medium |
| | | | | | | | 0.60 - 2.0 | Gray/Fine to Medium Sand/Trace Coarse Sand/Trace Fine to Medium |
| KRT7 | KRT7-5 | 2.7 | 2.1 | 1.0 | 0.80 | Coarse | 0 - 0.80 | Brown/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium |
| KRT7 | KRT7-6 | 2.3 | 1.1 | 1.0 | 0.75 | Coarse | 0 - 0.75 | Gray Brown/Fine to Coarse Sand/Little Fine to Medium Gravel |
| KRT7 | KRT7-7 | 2.4 | 1.2 | 1.4 | 1.4 | Coarse | 0 - 1.4 | Gray Brown/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium |
| KRT7 | KRT7-8 | 1.5 | 1.0 | 0.90 | 0.90 | Coarse | 0 - 0.10 | Fine to Medium Gravel |
| | | | | | | | 0.10 - 0.90 | Dark Gray/Fine to Medium Sand/Little Coarse Sand/Trace Fine to Medium |
| KRT8 | KRT8-1 | 0 | 2.5 | 2.0 | 1.2 | Fine | 0 - 1.2 | Dark Gray Brown Silt/Clay, Trace Fine Sand |

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Table 1 – Sediment Core/Probing Data - Kalamazoo River Transects

| Transect | Location ID | Water Depth (ft) | Probing Depth (ft) | Sediment Penetrated (ft) | Sediment Recovered (ft) | Texture Class | Depth Interval (ft) | Sediment Description |
|----------|-------------|------------------|--------------------|--------------------------|-------------------------|---------------|---------------------|--|
| KRT8 | KRT8-2 | 0.90 | 4.4 | 3.5 | 2.7 | Fine | 0 - 0.20 | Brown Fine Sand |
| | | | | | | | 0.20 - 2.0 | Dark Gray Brown Soft Silt, Trace Fine Sand, Trace Organics |
| | | | | | | | 2.0 - 2.7 | Gray Fine to Medium Sand, Trace Coarse Sand |
| KRT8 | KRT8-3 | 1.6 | 0.5 | 1.0 | 1.0 | Coarse | 0 - 0.30 | Orange Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine |
| | | | | | | | 0.30 - 1.0 | Dark Gray Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel |
| KRT8 | KRT8-4 | 2.6 | 5.0 | 1.8 | 1.5 | Coarse | 0 - 0.20 | Orange Brown Fine to Medium Sand, Trace Coarse Sand |
| | | | | | | | 0.20 - 1.5 | Gray Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium |
| KRT8 | KRT8-5 | 2.7 | 1.4 | 1.4 | 1.2 | Coarse | 0 - 1.2 | Gray Brown Fine to Coarse Sand, Trace/Little Fine to Medium Gravel |
| KRT8 | KRT8-6 | 2.4 | 0.3 | 1.9 | 1.9 | Coarse | 0 - 0.20 | Orange Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel |
| | | | | | | | 0.20 - 0.70 | Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel |
| | | | | | | | 0.70 - 1.9 | Gray Fine to Coarse Sand, Trace Fine to Medium Gravel |
| KRT8 | KRT8-7 | 2.7 | 0.3 | 0.60 | 0.60 | Coarse | 0 - 0.60 | Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel |
| KRT8 | KRT8-8 | 0.60 | 4.5 | 2.4 | 1.8 | Coarse | 0 - 1.1 | Dark Gray Brown Fine Sand/Silt |
| | | | | | | | 1.1 - 1.8 | Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel |
| KRT9 | KRT9-1 | 2.3 | 1.3 | 1.0 | 0.70 | Coarse | 0 - 0.50 | Dark Gray Brown Fine Sand, Trace Silt |
| | | | | | | | 0.50 - 0.70 | Dark Gray Brown Fine to Coarse Sand, Trace Fine Gravel |
| KRT9 | KRT9-2 | 3.4 | 1.4 | 1.0 | 0.95 | Fine | 0 - 0.20 | Brown Fine Sand, Trace Silt, Trace Organics |
| | | | | | | | 0.20 - 0.95 | Dark Gray Fine Sand, Trace Silt |
| KRT9 | KRT9-3 | 3.8 | 0.6 | 0.60 | 0.55 | Coarse | 0 - 0.20 | Brown Fine Sand, Trace Silt |
| | | | | | | | 0.20 - 0.55 | Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine Gravel |
| KRT9 | KRT9-4 | 6.3 | 3.1 | 1.0 | 0.85 | Coarse | 0 - 0.85 | Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel |
| KRT9 | KRT9-5 | 7.2 | 2.5 | 1.5 | 1.3 | Coarse | 0 - 1.3 | Orange Brown Fine to Coarse Sand, Trace/Little Fine to Medium Gravel |
| KRT9 | KRT9-6 | 5.9 | 2.4 | 1.5 | 1.0 | Coarse | 0 - 0.20 | Gray Brown Fine Sand |
| | | | | | | | 0.20 - 1.0 | Gray Brown Fine to Coarse Sand, Trace Fine Gravel |
| KRT9 | KRT9-7 | 3.1 | 1.5 | 0.50 | 0.35 | Coarse | 0 - 0.20 | Brown Fine Sand |
| | | | | | | | 0.20 - 0.35 | Brown Fine to Coarse Sand, Coarse Gravel In Tip of Core (Bottom) |
| KRT9 | KRT9-8 | 1.5 | 0.2 | 0.50 | 0.40 | Fine | 0 - 0.40 | Dark Brown Loose Silt, Trace Fine Sand, Coarse Gravel In Bottom of |
| KRT10 | KRT10-1 | 0 | 4.0 | 4.0 | 2.4 | Fine | 0 - 2.0 | Dark Brown Loose Silt, Trace Fine Sand, Trace Organics (Odor/Sheens) |
| | | | | | | | 2.0 - 2.4 | Light Brown Fine Sand/Silt |

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Table 1 – Sediment Core/Probing Data - Kalamazoo River Transects

| Transect | Location ID | Water Depth (ft) | Probing Depth (ft) | Sediment Penetrated (ft) | Sediment Recovered (ft) | Texture Class | Depth Interval (ft) | Sediment Description |
|----------|-------------|------------------|--------------------|--------------------------|-------------------------|---------------|---------------------|---|
| KRT10 | KRT10-2 | 2.0 | 0.4 | 0.70 | 0.70 | Fine | 0 - 0.30 | Dark Brown Very Loose Silt |
| | | | | | | | 0.30 - 0.70 | Dark Gray Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel |
| KRT10 | KRT10-3 | 2.9 | 0.6 | 0.50 | 0.35 | Coarse | 0 - 0.35 | Brown Fine to Coarse Sand, Little Fine to Medium Gravel |
| KRT10 | KRT10-4 | 3.2 | 2.4 | 1.5 | 1.4 | Coarse | 0 - 1.4 | Gray Brown Grading to Light Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel |
| KRT10 | KRT10-5 | 3.4 | 1.9 | 1.7 | 1.5 | Coarse | 0 - 0.30 | Brown Fine to Medium Sand, Trace Coarse Sand, Trace Shells |
| | | | | | | | 0.30 - 1.5 | Light Gray Brown Fine to Coarse Sand, Trace Fine to Medium Gravel |
| KRT10 | KRT10-6 | 2.2 | 0.4 | 0.50 | 0.50 | Coarse | 0 - 0.50 | Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium |
| KRT10 | KRT10-7 | 1.4 | 1.1 | 1.0 | 0.95 | Coarse | 0 - 0.25 | Brown Fine Sand, Trace Organics |
| | | | | | | | 0.25 - 1.0 | Dark Gray Brown Fine to Medium Sand, Trace Coarse Sand, Trace Fine to Medium Gravel |
| KRT10 | KRT10-8 | 1.2 | 2.3 | 2.2 | 1.8 | Coarse | 0 - 0.85 | Dark Gray Brown Fine Sand, Trace Silt |
| | | | | | | | 0.85 - 1.8 | Light Gray Brown Fine to Medium Sand, Little Coarse Sand, Trace Fine to Medium Gravel |
| KRT11 | KRT11-1 | 5.0 | 2.5 | 2.0 | 1.6 | Coarse | 0 - 1.1 | Gray Brown Very Fine Sand to Medium Sand, Trace Shell |
| | | | | | | | 1.1 - 1.3 | Gray Fine to Medium Sand |
| | | | | | | | 1.3 - 1.6 | Gray Brown Fine to Coarse Sand |
| KRT11 | KRT11-2 | 7.3 | 0.1 | 0 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT11 | KRT11-3 | 8.4 | 2.0 | 1.8 | 1.4 | Coarse | 0 - 0.050 | Brown Very Fine Sand |
| | | | | | | | 0.050 - 0.25 | Brown Fine Sand |
| KRT11 | KRT11-4 | 9.4 | 2.6 | 1.2 | 0.95 | Coarse | 0 - 0.050 | Brown Fine to Coarse Sand, Gravel |
| | | | | | | | 0.050 - 0.95 | Gray Clay (Marbleize) |
| KRT11 | KRT11-5 | 8.8 | 1.2 | 0.60 | 0.30 | Fine | 0 - 0.15 | Brown Very Fine Sand to Fine Sand |
| | | | | | | | 0.15 - 0.30 | Brown Medium to Coarse Sand, Trace Gravel, Trace Shell |
| KRT11 | KRT11-6 | 5.5 | 1.5 | 1.4 | 1.1 | Coarse | 0 - 0.40 | Gray Brown Very Fine Sand to Fine Sand |
| | | | | | | | 0.40 - 1.1 | Gray Brown Fine to Coarse Sand, Trace Gravel |
| KRT11 | KRT11-7 | 1.9 | 3.1 | 2.4 | 1.8 | Coarse | 0 - 0.10 | Gray Black Very Fine Sand, Silt |
| | | | | | | | 0.10 - 1.8 | Gray Medium to Coarse Sand, Fine Gravel, Trace Cobble |
| KRT11 | KRT11-8 | 0.10 | 8.5 | 8.5 | 4.2 | Coarse | 0 - 0.10 | Dark Black Silt, Very Fine Sand, Leaves |
| | | | | | | | 0.10 - 1.5 | Gray Black Fine to Medium Sand |
| KRT12 | KRT12-1 | 0.80 | 2.2 | 2.2 | 1.8 | Fine | 0 - 1.8 | Black Silt With Gray Fine Sand Over Rock |
| | | | | | | | 0 - 0.40 | Gravel Over Fine to Medium Sand |
| KRT12 | KRT12-2 | 7.1 | 0.9 | 0.80 | 0.60 | Coarse | 0.40 - 0.60 | Gray Clay |

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Table 1 – Sediment Core/Probing Data - Kalamazoo River Transects

| Transect | Location ID | Water Depth (ft) | Probing Depth (ft) | Sediment Penetrated (ft) | Sediment Recovered (ft) | Texture Class | Depth Interval (ft) | Sediment Description |
|----------|-------------|------------------|--------------------|--------------------------|-------------------------|---------------|---------------------|--|
| KRT12 | KRT12-3 | 7.6 | 1.2 | 2.3 | 2.1 | Coarse | 0 - 1.0 | Brown to Gray Medium Sand |
| | | | | | | | 1.0 - 1.6 | Gray Fine Sand |
| | | | | | | | 1.6 - 2.1 | Gray Black Very Fine Sand to Fine Sand With Trace Silt |
| KRT12 | KRT12-4 | 6.5 | 3.8 | 3.5 | 2.8 | Coarse | 0 - 0.90 | Brown Medium to Coarse Sand With Shells |
| | | | | | | | 0.90 - 1.5 | Gray Black Fine to Medium Sand |
| | | | | | | | 1.5 - 2.8 | Gray Black Fine Sand |
| KRT12 | KRT12-5 | 5.6 | 1.7 | 1.5 | 1.1 | Coarse | 0 - 0.40 | Brown Fine Sand |
| | | | | | | | 0.40 - 1.1 | Brown Medium to Coarse Sand With Trace Gravel |
| KRT12 | KRT12-6 | 4.0 | 3.7 | 2.7 | 2.1 | Coarse | 0 - 2.1 | Gray Black Fine Sand With Trace Leaves |
| KRT12 | KRT12-7 | 1.6 | 4.6 | 3.0 | 2.6 | Coarse | 0 - 1.8 | Gray Black Fine Sand |
| | | | | | | | 1.8 - 1.9 | Brown Medium to Coarse Sand |
| | | | | | | | 1.9 - 2.6 | Black Very Fine Sand to Fine Sand |
| KRT12 | KRT12-8 | 0.50 | 6.5 | 3.5 | 2.5 | Fine | 0 - 2.5 | Gray Black Very Fine Sand to Fine Sand |
| KRT13 | KRT13-1 | 0.15 | 1.0 | 0.60 | 0.40 | Coarse | 0 - 0.40 | Gray Brown Fine Sand, Roots |
| KRT13 | KRT13-2 | 2.3 | 0.1 | 0.10 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT13 | KRT13-3 | 2.7 | 0.1 | 0.10 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT13 | KRT13-4 | 3.3 | 0.0 | 0 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT13 | KRT13-5 | 2.8 | 0.0 | 0 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT13 | KRT13-6 | 2.4 | 0.0 | 0 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT13 | KRT13-7 | 2.3 | 0.1 | 0 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT13 | KRT13-8 | 1.1 | 0.9 | 0.90 | 0.80 | Fine | 0 - 0.10 | Brown Fine Sand, Few Shells |
| | | | | | | | 0.10 - 0.80 | Gray Very Fine Sand/Silt |
| | | | | | | | 0.80 - 0.90 | Gray Brown Medium to Coarse Sand, Trace Gravel |
| KRT14 | KRT14-1 | 0.70 | 0.6 | 0.40 | 0.20 | Coarse | 0 - 0.20 | Gray Brown Fine to Coarse Sand, Trace Gravel |
| | | | | | | | 0 - 0.40 | Gray Brown Fine Sand |
| | | | | | | | 0.40 - 0.60 | Gray Brown Medium to Coarse Sand, Trace Gravel |
| KRT14 | KRT14-3 | 2.5 | 1.4 | 1.4 | 1.2 | Coarse | 0 - 0.70 | Gray Brown Fine to Medium Sand |
| | | | | | | | 0.70 - 0.80 | Gray Black Fine Sand |
| | | | | | | | 0.80 - 1.2 | Gray Fine Sand |
| KRT14 | KRT14-4 | 4.2 | 1.9 | 2.0 | 1.9 | Coarse | 0 - 0.95 | Brown Fine to Coarse Sand, Trace Gravel |
| | | | | | | | 0.95 - 1.9 | Gray Fine Sand, Trace Medium Sand |
| KRT14 | KRT14-5 | 4.1 | 2.3 | 1.8 | 1.3 | Coarse | 0 - 0.60 | Brown Medium to Coarse Sand, Shells |
| | | | | | | | 0.60 - 1.3 | Gray Medium to Coarse Sand, Trace Gravel |
| | | | | | | | 1.3 - 2.0 | No Recovery |
| KRT14 | KRT14-6 | 3.2 | 0.0 | 0 | 0 | Coarse | 0 - 0 | No Recovery |
| | | | | | | | 0 - 0.40 | Brown Fine to Coarse Sand |
| | | | | | | | 0.40 - 0.50 | Gray Brown Coarse Sand, Trace Gravel |
| KRT14 | KRT14-7 | 3.7 | 0.6 | 0.60 | 0.45 | Coarse | 0 - 0.80 | Gray Brown Fine Sand |
| | | | | | | | 0.80 - 1.0 | Gray Brown Fine to Medium Sand |
| | | | | | | | 1.0 - 1.2 | Gray Brown Medium to Coarse Sand, Trace Gravel |
| KRT14 | KRT14-8 | 0.50 | 2.1 | 1.2 | 1.0 | Coarse | 0 - 0.80 | Gray Brown Fine Sand |
| | | | | | | | 0.80 - 1.0 | Gray Brown Fine to Medium Sand |
| | | | | | | | 1.0 - 1.2 | Gray Brown Medium to Coarse Sand, Trace Gravel |
| KRT15 | KRT15-1 | 0.10 | 1.0 | 1.0 | 0.80 | Coarse | 0 - 0.80 | Gray Brown Fine Sand, Trace Medium Sand |

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Table 1 – Sediment Core/Probing Data - Kalamazoo River Transects

| Transect | Location ID | Water Depth (ft) | Probing Depth (ft) | Sediment Penetrated (ft) | Sediment Recovered (ft) | Texture Class | Depth Interval (ft) | Sediment Description |
|----------|-------------|------------------|--------------------|--------------------------|-------------------------|---------------|---------------------|---|
| KRT15 | KRT15-2 | 1.7 | 2.8 | 1.6 | 1.2 | Coarse | 0 - 0.30 | Gray Brown Fine Sand, Trace Medium to Coarse Sand |
| | | | | | | | 0.30 - 1.2 | Gray Black Fine Sand |
| KRT15 | KRT15-3 | 3.5 | 4.3 | 0.80 | 0.80 | Coarse | 0 - 0.10 | Brown Fine Sand, Trace Gravel, Shell |
| | | | | | | | 0.10 - 0.80 | Gray Brown Fine to Medium Sand |
| KRT15 | KRT15-4 | 4.0 | 0.4 | 0.40 | 0.40 | Coarse | 0 - 0.40 | Brown Fine to Coarse Sand, Trace Gravel |
| KRT15 | KRT15-5 | 4.0 | 0.5 | 0.50 | 0.15 | Coarse | 0 - 0.15 | Brown Fine Sand Mixed With Coarse Gravel, Some Shells |
| KRT15 | KRT15-6 | 3.3 | 1.8 | 1.4 | 0.90 | Coarse | 0 - 0.10 | Gravel Rock |
| | | | | | | | 0.10- 0.90 | Gray Brown Fine to Medium Sand |
| KRT15 | KRT15-7 | 2.6 | 2.2 | 1.9 | 1.5 | Coarse | 0 - 1.5 | Fine to Very Coarse Sand Mixture |
| KRT15 | KRT15-8 | 0.70 | 2.8 | 3.0 | 3.0 | Coarse | 0 - 0.10 | Gray Brown Very Fine Sand, Silt |
| | | | | | | | 0.10 - 2.0 | Brown Fine to Medium Sand |
| | | | | | | | 2.0 - 3.0 | Brown Fine to Coarse Sand |
| KRT16 | KRT16-1 | 0.55 | 4.0 | 1.5 | 1.2 | Coarse | 0 - 1.1 | Gray Black Fine Sand, Trace Medium Sand |
| | | | | | | | 1.1 - 1.2 | Gravel Rock |
| KRT16 | KRT16-2 | 4.6 | 0.1 | 0 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT16 | KRT16-3 | 4.5 | 0.1 | 0 | 0 | Coarse | 0 - 0 | No Recovery |
| KRT16 | KRT16-4 | 3.4 | 0.4 | 0.40 | 0.20 | Coarse | 0 - 0.20 | Brown Fine to Coarse Sand, Trace Gravel |
| KRT16 | KRT16-5 | 2.9 | 0.4 | 0.40 | 0.20 | Coarse | 0 - 0.20 | Brown Fine Sand, Trace Organics |
| KRT16 | KRT16-6 | 1.7 | 1.6 | 1.6 | 1.2 | Coarse | 0 - 0.10 | Brown Very Fine Sand to Fine Sand, Wood |
| | | | | | | | 0.10 - 1.2 | Gray Brown Fine Sand |
| KRT16 | KRT16-7 | 1.5 | 2.5 | 2.6 | 2.2 | Coarse | 0 - 0.20 | Brown Fine Sand |
| | | | | | | | 0.20 - 2.2 | Gray Black Fine Sand |
| KRT16 | KRT16-8 | 0.20 | 2.0 | 2.0 | 1.3 | Fine | 0 - 0.60 | Silt, Very Fine Sand, Gray Black |
| | | | | | | | 0.60 - 1.3 | Gray Residual, Wood |

Notes:

ft - feet

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Table 2 – Summary of Sediment Transect Probing Data - Kalamazoo River Transects

| Transect | Water Depth | | Probing Depth | |
|----------|-------------|-----------|---------------|-----------|
| | Range (ft) | Mean (ft) | Range (ft) | Mean (ft) |
| KRT1 | 0 - 4.1 | 2.8 | 0 - 5.0 | 2.1 |
| KRT2 | 0 - 5.2 | 2.3 | 1.4 - 7.8 | 5.2 |
| KRT3 | 0.55 - 8.2 | 4.3 | 1.0 - 4.6 | 2.5 |
| KRT4 | 0.45 - 8.2 | 4.1 | 0.90 - 7.1 | 3.3 |
| KRT5 | 0 - 9.9 | 5.8 | 2.2 - 5.7 | 3.8 |
| KRT6 | 0 - 7.3 | 4.3 | 1.8 - 5.5 | 3.5 |
| KRT7 | 0 - 3.1 | 2.3 | 1.0 - 3.7 | 2.2 |
| KRT8 | 0 - 2.7 | 1.7 | 0.30 - 5.0 | 2.4 |
| KRT9 | 1.5 - 7.2 | 4.2 | 0.20 - 3.1 | 1.6 |
| KRT10 | 0 - 3.4 | 2.0 | 0.40 - 4.0 | 1.6 |
| KRT11 | 0.10 - 9.4 | 5.8 | 0.10 - 8.5 | 2.7 |
| KRT12 | 0.50 - 7.6 | 4.2 | 0.90 - 6.5 | 3.1 |
| KRT13 | 0.15 - 3.3 | 2.1 | 0 - 1.0 | 0.28 |
| KRT14 | 0.50 - 4.2 | 2.6 | 0 - 2.3 | 1.3 |
| KRT15 | 0.10 - 4.0 | 2.5 | 0.40 - 4.3 | 2.0 |
| KRT16 | 0.20 - 4.6 | 2.4 | 0.10 - 4.0 | 1.4 |

Notes:

ft - feet

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Table 3 – Summary of Sediment Core Texture - Kalamazoo River Transects

| Transect | Number of Core Locations | Number of Coarse Sediment Locations | Number of Fine Sediment Locations |
|--------------|--------------------------|-------------------------------------|-----------------------------------|
| KRT1 | 8 | 8 | 0 |
| KRT2 | 8 | 5 | 3 |
| KRT3 | 8 | 6 | 2 |
| KRT4 | 8 | 7 | 1 |
| KRT5 | 8 | 5 | 3 |
| KRT6 | 8 | 5 | 3 |
| KRT7 | 8 | 7 | 1 |
| KRT8 | 8 | 6 | 2 |
| KRT9 | 8 | 6 | 2 |
| KRT10 | 8 | 6 | 2 |
| KRT11 | 8 | 7 | 1 |
| KRT12 | 8 | 6 | 2 |
| KRT13 | 8 | 7 | 1 |
| KRT14 | 8 | 8 | 0 |
| KRT15 | 8 | 8 | 0 |
| KRT16 | 8 | 7 | 1 |
| Total | 128 | 104 (81%) | 24 (19%) |

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Table 4 - Core Location Breakdown - Georgia-Pacific Mill to Crown Vantage Landfill

| River Interval | Transects | # Fine | # Coarse |
|---------------------------------------|--------------|--------|----------|
| Georgia-Pacific Mill to Portage Creek | KRT1 - KRT2 | 3 | 3 |
| Portage Creek to Mosel Avenue | KRT3 - KRT6 | 9 | 3 |
| Mosel Avenue to Crown Vantage | KRT7 - KRT10 | 7 | 5 |
| | Total | 19 | 11 |
| | | 63% | 37% |

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Table 5 - Core Locations Selected for Analysis - Georgia-Pacific Mill to Crown Vantage Landfill

| River Interval | Sample ID | Sediment Classification | Distance from Right Bank (ft) | Core Length (ft) |
|---------------------------------------|-----------|-------------------------|-------------------------------|------------------|
| Georgia-Pacific Mill to Portage Creek | KRT1-4 | Coarse | 102 | 0.45 |
| | KRT1-6 | Coarse | 170 | 1.4 |
| | KRT2-2 | Coarse | 36 | 2.7 |
| | KRT2-6 | Fine ⁽¹⁾ | 180 | 2.3 |
| | KRT2-7 | Fine | 216 | 0.9 |
| | KRT2-8 | Fine | 249 | 3.1 |
| | KRT3-1 | Fine | 0 | 1.1 |
| Portage Creek to Mosel Avenue | KRT3-4 | Coarse | 60 | 0.8 |
| | KRT3-8 | Fine | 139 | 2.2 |
| | KRT4-2 | Fine | 21 | 4.5 |
| | KRT4-5 | Coarse | 84 | 1.3 |
| | KRT4-8 | Coarse | 144.4 | 1.7 |
| | KRT5-1 | Fine | 0 | 2 |
| | KRT5-3 | Fine | 34 | 4.1 |
| | KRT5-4 | Fine | 51 | 2.7 |
| | KRT6-2 | Fine | 28 | 2.9 |
| | KRT6-7 | Fine | 168 | 1.9 |
| Mosel Avenue to Crown Vantage | KRT6-8 | Fine | 194 | 1.4 |
| | KRT7-1 | Fine | 0 | |
| | KRT7-5 | Coarse | 104 | 0.8 |
| | KRT8-1 | Fine | 0 | 0.9 |
| | KRT8-2 | Fine | 35 | 1.2 |
| | KRT8-5 | Coarse | 140 | 2.7 |
| | KRT8-8 | Coarse | 246 | 1.8 |
| | KRT9-2 | Fine | 18 | 0.95 |
| | KRT9-5 | Coarse | 72 | 1.3 |
| | KRT9-8 | Fine ⁽¹⁾ | 123 | 0.4 |

Note:

1. Core location proposed for TCL/TAL and SEM/AVS analysis.

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Table 6 - Core Location Breakdown - Plainwell No. 2 Dam to Mill Race Confluence

| River Interval | Transects | # Fine | # Coarse |
|----------------------|----------------|--------|----------|
| Kalamazoo River | KRT11 - KRT13 | 4 | 5 |
| Mill Race | KRT14 - KRT 15 | 0 | 6 |
| Mill Race Confluence | KRT16 | 1 | 2 |
| | Total | 5 | 13 |
| | | 28% | 72% |

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Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site
Supplemental Remedial Investigations/Feasibility Studies
Kalamazoo River SRI Phase 2 Sediment Core Analyses Plan

Table 7 - Core Locations Selected for Analysis - Plainwell No. 2 Dam to
Mill Race Confluence

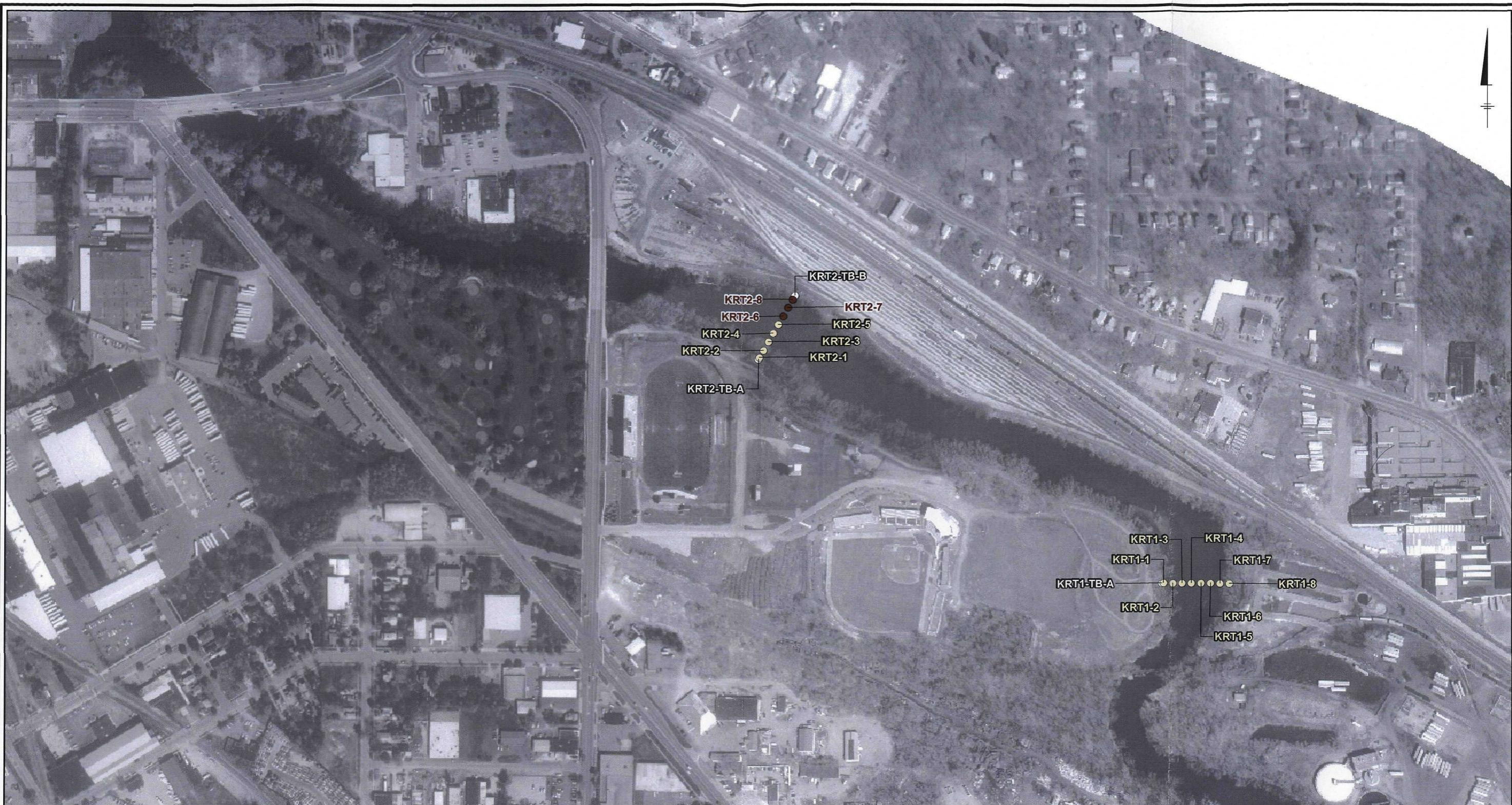
| River Interval | Sample ID | Sediment Classification | Distance from Right Bank (ft) |
|----------------------|-----------|-------------------------|-------------------------------|
| Kalamazoo River | KRT11-1 | Coarse | 0 |
| | KRT11-5 | Fine | 55 |
| | KRT11-8 | Coarse | 96 |
| | KRT12-1 | Fine | 0 |
| | KRT12-4 | Coarse | 55.5 |
| | KRT12-8 | Fine | 130 |
| | KRT13-1 | Coarse | 0 |
| | KRT13-5 | Coarse | 68 |
| | KRT13-8 | Fine ⁽¹⁾ | 118 |
| Mill Race | KRT14-1 | Coarse | 0 |
| | KRT14-5 | Coarse | 46 |
| | KRT14-7 | Coarse | 69 |
| | KRT15-1 | Coarse | 0 |
| | KRT15-4 | Coarse | 25.5 |
| | KRT15-8 | Coarse | 59 |
| Mill Race Confluence | KRT16-1 | Coarse | 0 |
| | KRT16-6 | Coarse | 175 |
| | KRT16-8 | Fine ⁽¹⁾ | 248 |

Note:

1. Core location proposed for TCL/TAL and SEM/AVS analysis.

ARCADIS

Figures



LEGEND:

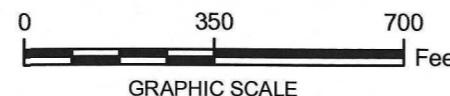
○ SOIL SAMPLING LOCATION

SEDIMENT SAMPLING LOCATION

MATERIAL CLASSIFICATION:

● FINE

○ COARSE



NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.
3. NO MATERIAL CLASSIFICATION EXISTS FOR TOP OF BANK SOIL SAMPLE LOCATIONS.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER SRI PHASE 2
SEDIMENT CORE ANALYSES PLAN
SEDIMENT TRANSECT SAMPLING
CHARACTERIZATION - FORMER GEORGIA-
PACIFIC MILL LAGOONS TO PORTAGE CREEK

 **ARCADIS**

FIGURE
1



NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.
3. NO MATERIAL CLASSIFICATION EXISTS FOR TOP OF BANK SOIL SAMPLE LOCATIONS.

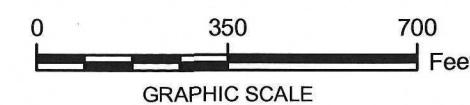
KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER SRI PHASE 2
SEDIMENT CORE ANALYSES PLAN
SEDIMENT TRANSECT SAMPLING
CHARACTERIZATION - PORTAGE
CREEK TO CROWN VANTAGE LANDFILL





LEGEND:

- EXISTING SEDIMENT CORE PCB DATA
- SEDIMENT SAMPLES TO REMAIN ARCHIVED
- SEDIMENT SAMPLES TO BE ANALYZED
- MATERIAL CLASSIFICATION:
 - FINE SEDIMENT CORE SAMPLE SELECTED FOR ANALYSIS
 - COARSE SEDIMENT CORE SAMPLE SELECTED FOR ANALYSIS



NOTE:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.

| |
|--|
| KALAMAZOO RIVER STUDY GROUP ALLIED PAPER, INC./PORTAGE CREEK/ KALAMAZOO RIVER SUPERFUND SITE KALAMAZOO RIVER SRI PHASE 2 SEDIMENT CORE ANALYSES PLAN |
| SEDIMENT SAMPLES TO BE ANALYZED FOR TOTAL PCBs - GEORGIA- PACIFIC MILL TO PORTAGE CREEK |



**FIGURE
3**



LEGEND:

- ▲ EXISTING SURFACE PCB DATA
- EXISTING SEDIMENT CORE PCB DATA
- SEDIMENT SAMPLES TO REMAIN ARCHIVED

SEDIMENT SAMPLES TO BE ANALYZED

MATERIAL CLASSIFICATION:

- FINE SEDIMENT CORE SAMPLE SELECTED FOR ANALYSIS
- COARSE SEDIMENT CORE SAMPLE SELECTED FOR ANALYSIS

0 1,000 2,000
Feet
GRAPHIC SCALE

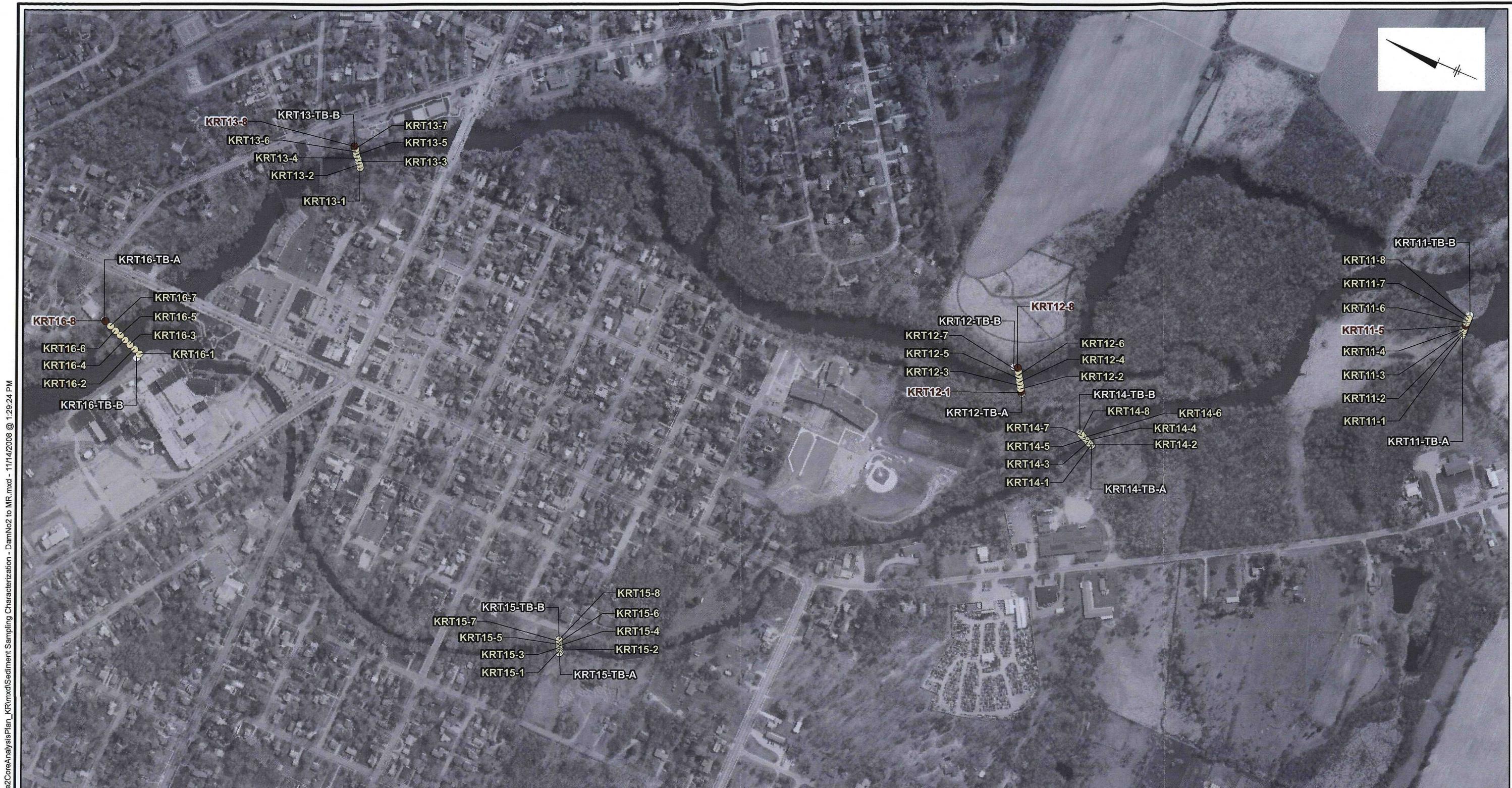
NOTE:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER SRI PHASE 2
SEDIMENT CORE ANALYSES PLAN
SEDIMENT SAMPLES TO BE ANALYZED
FOR TOTAL PCBs - PORTAGE
CREEK TO CROWN VANTAGE LANDFILL

 **ARCADIS**

FIGURE
4



LEGEND:

- SOIL SAMPLING LOCATION
- SEDIMENT SAMPLING LOCATION

MATERIAL CLASSIFICATION:

- FINE
- COARSE

0 500 1,000
GRAPHIC SCALE Feet

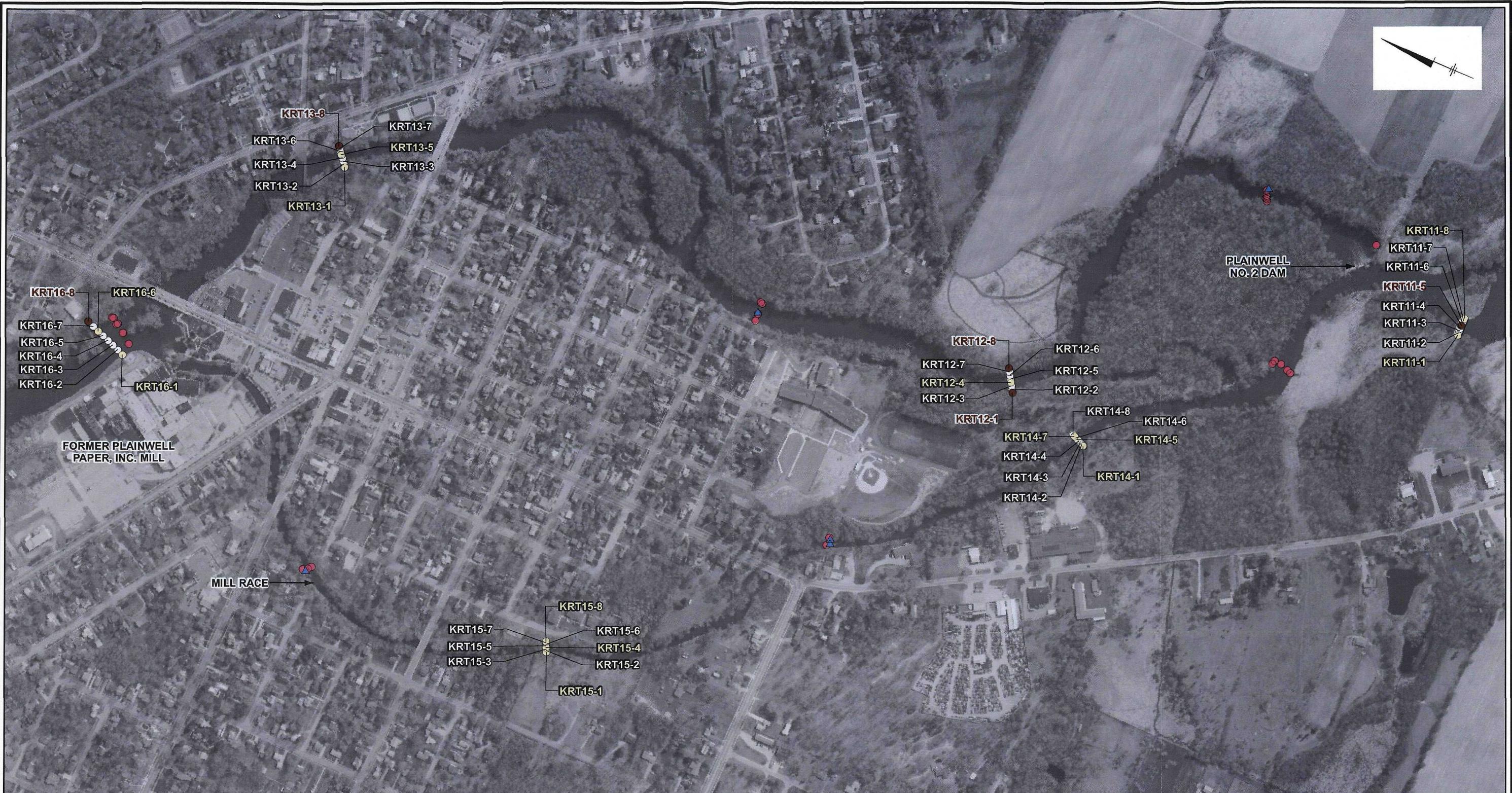
NOTES:

1. AERIAL IMAGE DERIVED FROM ORTHOGRAPHIC DATA BY AIR LAND SURVEYS, INC., KALAMAZOO RIVER FLOWN 4/24/99, PORTAGE CREEK FLOWN 4/27/00.
2. SAMPLES COLLECTED OCTOBER 2007.
3. NO MATERIAL CLASSIFICATION EXISTS FOR TOP OF BANK SOIL SAMPLE LOCATIONS.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
KALAMAZOO RIVER SRI PHASE 2
SEDIMENT CORE ANALYSES PLAN
SEDIMENT TRANSECT SAMPLING
CHARACTERIZATION - UPSTREAM OF PLAINWELL
NO. 2 DAM TO MILL RACE CONFLUENCE



FIGURE
5



LEGEND:

- ▲ EXISTING PCB SURFACE SEDIMENT DATA
- EXISTING PCB SEDIMENT CORE DATA
- SEDIMENT SAMPLES TO REMAIN ARCHIVED

SEDIMENT SAMPLES TO BE ANALYZED

MATERIAL CLASSIFICATION:

- FINE SEDIMENT CORE SAMPLE SELECTED FOR ANALYSIS
- COARSE SEDIMENT CORE SAMPLE SELECTED FOR ANALYSIS



NOTE:

1. AERIAL IMAGERY COLLECTED IN 2004 PROVIDED BY PREIN & NEWHOF.

KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/
KALAMAZOO RIVER SUPERFUND SITE
**KALAMAZOO RIVER SRI PHASE 2
SEDIMENT CORE ANALYSES PLAN**

**SEDIMENT SAMPLES TO BE ANALYZED
FOR TOTAL PCBs - UPSTREAM OF PLAINWELL
No. 2 DAM TO MILL RACE CONFLUENCE**

ARCADIS

**FIGURE
6**

ARCADIS

Attachment 1

1997 Kalamazoo Sediment
Particle Size Analysis Letter



Transmitted Via Federal Express

December 1, 1997

Mr. Scott Cornelius
MDEQ-ERD
Superfund Section
301 S. Capital Avenue
Lansing, MI 48933

Re: Kalamazoo Sediment Particle Size Analysis
Project #: 645.24.112

Dear Scott:

This correspondence provides a preliminary interpretation of particle size results for the Kalamazoo River Phase II sediment cores and transmits tables presenting the particle size data. At this time, results have been received for all samples submitted for particle size analysis; these results are summarized in Table 1. Also included herein are tables and figures specific to those cores which MDEQ felt were initially misclassified as fine-grained (56 cores communicated by John Bradley on July 30, 1997); these data (Table 2) were evaluated to assess the potential effect of misclassification on the stratified sediment sampling strategy. In addition, possible future action as a result of the review of these data is suggested.

Based on the original designation of cores as either coarse or fine, Figures 1A, 2A and 3A plot the data to show relationships among median particle size, percent silts and clays, and percent solids. The graphs indicate that there is a good separation of coarse and fine designations in general, with some degree of overlap. While overlap is not entirely unexpected when applying a binomial classification to a continuous type population, attempts should be made to minimize the overlap where possible.

Prior to analysis of any particle size data from the laboratory, each core for which the analysis was scheduled was re-classified based on the physical description recorded in the field logs at the time of core collection. Independent of both the previous classification and the analytical results, cores were re-classified using a simple 0 to 5 numeric system where 0 represents rock and gravel, 1 represents gravel with some sands, 2 represents medium to coarse sands, 3 represents fine sands with a trace of medium to coarse sands, 4 represents silts with fine sands, and 5 represents silts and organic matter. Units of 0.5 were used in the rating scheme. Cores were rated based on the relative amounts of sediment constituents according to field notes, and although subjective, the rating was performed consistently to serve as a comparative benchmark against which laboratory particle size results and original classifications could be evaluated to draw conclusions regarding the status of the disputed cores. Figure 4 shows the distribution of cores originally classified as fine or coarse sorted by the new classification. Also shown is the distribution of the disputed cores, which clearly reflect the area of overlap between the coarse and fine distributions.

Scott Cornelius
MDEQ-ERD
December 1, 1997
Page 2 of 3

Figures 1B, 2B and 3B allow comparison of the disputed core distributions and the total distribution of all particle size data. The disputed cores reflect the area of overlap between fine and coarse classification. When viewed in terms of the numeric classification, those re-classified as 3.5 or greater generally tend towards fines, those 2.5 or less tend toward coarse, and those given the 3 classification represent the most transitional value. Figures 5 and 6, bar chart presentations of median particle diameter and percentages of clays, silts and sands in the disputed cores sorted by numeric classification serve to reinforce this point. Use of 2.5 and below as coarse, 3.5 and above as fine, and 3 as a transitional value adequately reflect the larger data set as shown in Figures 7 and 8.

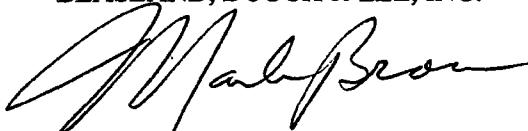
Based upon this preliminary review of the particle size data from 398 cores (40 of which were from Portage Creek), the following are recommended:

- Substitute cores should be selected and analyzed for each fine core that was classified 2.5 or lower (coarse) and where silt and clay comprised less than 10% by weight (a total of 18 cores, 12 of which were identified by MDEQ and 6 others). To supplement these cores, the nearest core with a numeric rating of 3.5 or greater would be used. Table 3 lists the cores recommended for replacement.
- Substitute cores for fine cores which were re-classified with a 3 should replace another 12 cores which have less than 10% silt and clay and median particle size greater than 1,000 μm . Table 3 lists the cores recommended for replacement.
- The classification of other cores as fine or coarse may be modified based on particle size and percent solids data, but other than those cores listed in Table 3 that are to be substituted for, no additional core analysis is proposed. Even with these changes, there will be enough each of fine and coarse cores to perform the Phase II sediment investigation as originally planned.

If you have any questions about the contents of this letter and its recommendations, please give me a call.

Sincerely,

BLASLAND, BOUCK & LEE, INC.



Mark P. Brown
Vice President

MPB/ccm

Scott Cornelius
MDEQ-ERD
December 1, 1997
Page 3 of 3

cc: Cynthia V. Bailey, Esq.
Bonnie Barnett, Esq.
J. Michael Davis, Esq.
Jon F. DeWitt, Esq.
Kathy E.B. Robb, Esq.
Daniel O. Cummins, P.G.
Victor R. Ferguson
Paul Montney, P.E.
Gregory W. Peterson
Joyce S. Schlesinger, P.E.
Mark Hawley, Ph.D.

DRAFT

Table 1
Kalamazoo River Phase II Sediment Sampling
Particle Size Analysis Results

| Sample ID | Duplicate ID | Location | Depth Increment (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|----------------------|----------|------------------------------------|------|-------|--------------------|-----------|------------|------------|-----------------|
| | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40A Sieve | #200 Sieve | 5 μm |
| K51370 | | KPT1-1 | 0.17 - 1 | 81.7 | 140 | 280 | 650 | 100 | 95.7 | 72.7 | 9.9 | 1.5 |
| K50490 | | KPT1-2 | 0.17 - 1 | 86.9 | 270 | 700 | 6500 | 91.5 | 63.8 | 37.8 | 3.6 | 1.1 |
| K50444 | | KPT1-4 | 0.17 - 1 | 92.3 | 360 | 2800 | 8000 | 64.9 | 40.5 | 21.4 | 2.1 | 0.7 |
| K50455 | | KPT1-6 | 0.17 - 0.67 | 77 | 190 | 380 | 4400 | 85 | 77 | 57.6 | 4.7 | 1.1 |
| K50145 | | KPT2-6 | 0.17 - 1 | 80 | 80 | 200 | 450 | 96.6 | 95.4 | 82.5 | 15.1 | 4.6 |
| K50278 | | KPT3-1 | 0.17 - 0.83 | 71.8 | 140 | 250 | 400 | 100 | 99.5 | 87.6 | 8.9 | 3.9 |
| K50440 | | KPT3-2 | 0.17 - 1 | 92.7 | 300 | 1200 | 6500 | 78.1 | 59.7 | 27.7 | 2.8 | 0.7 |
| K50470 | | KPT3-3 | 0.17 - 0.67 | 89.2 | 32 | 800 | 10000 | 73 | 61.7 | 39.6 | 18.9 | 8.7 |
| K50452 | | KPT3-6 | 0.17 - 1 | 84.9 | 420 | 2500 | 6200 | 76.2 | 43.2 | 16.4 | 5.3 | 0.7 |
| K50473 | | KPT3-7 | 0.17 - 1 | 86.1 | 190 | 400 | 2000 | 94.5 | 84.2 | 52.3 | 4.7 | 1.3 |
| K50426 | | KPT4-1 | 0.17 - 1 | 88.2 | 230 | 850 | 14000 | 67.6 | 57.6 | 39.7 | 3.1 | 0.7 |
| K50432 | | KPT4-2 | 0.17 - 1 | 83.7 | 200 | 380 | 4750 | 83.9 | 75.9 | 56.9 | 2.2 | 0.7 |
| K50463 | | KPT4-5 | 0.17 - 1 | 93.4 | 425 | 4750 | 12000 | 50.2 | 32.3 | 16 | 5.2 | 0.3 |
| K50548 | | KPT4-6 | 0.17 - 1 | 89.9 | 260 | 2200 | 7800 | 91.6 | 47.7 | 29.6 | 2.6 | 0.6 |
| K51293 | K51295 | KPT5-1 | 0.17 - 1 | 91.3 | 500 | 5800 | 16000 | 69.2 | 27.6 | 14.6 | 1.8 | 0.6 |
| K51315 | | KPT5-3 | 0.17 - 1 | 79.3 | 170 | 300 | 2500 | 86.6 | 83.6 | 69.7 | 11.1 | 4.4 |
| K51332 | | KPT5-4 | 0.17 - 0.75 | 91.7 | 210 | 2300 | 11000 | 82.7 | 46.6 | 26.7 | 4.6 | 0.5 |
| K51327 | | KPT5-6 | 0.17 - 1 | 87.6 | 350 | 4500 | 12500 | 74.8 | 36 | 20.9 | 1.4 | 0.3 |
| K50526 | | KPT5-8 | 0.17 - 1 | 77.1 | 95 | 230 | 410 | 100 | 98.5 | 88.4 | 12.8 | 6 |
| K50434 | | KPT6-5 | 0.17 - 1 | 89.4 | 300 | 2200 | 8000 | 66.9 | 48.5 | 27.4 | 3.3 | 0.7 |
| K50438 | | KPT6-8 | 0.17 - 1.08 | 79 | 100 | 170 | 3000 | 87 | 80.7 | 62.9 | 11.1 | 2.4 |
| K50446 | | KPT8-3 | 0.17 - 0.75 | 83.7 | 70 | 700 | 5000 | 82.5 | 63.6 | 42.6 | 17 | 0.6 |
| K50281 | | KPT10-3 | 0.17 - 1 | 92.4 | 310 | 770 | 4500 | 85.5 | 67.9 | 27.5 | 5.5 | 1.1 |
| K50924 | | KPT10-3 | 0.17 - 1 | 88.7 | 300 | 740 | 2700 | 99.1 | 79.7 | 23.8 | 7.8 | 1.6 |
| K50442 | | KPT10-5 | 0.17 - 1 | 94.1 | 420 | 3000 | 12000 | 59.8 | 39.9 | 16.4 | 5.1 | 0.7 |
| K50594 | | KPT12-4 | 0.17 - 1 | 86.2 | 290 | 700 | 4400 | 94.9 | 72.3 | 32.9 | 3.8 | 0.6 |
| K50568 | | KPT13-4 | 0.17 - 1 | 82.3 | 200 | 425 | 5000 | 95.1 | 75.8 | 49.7 | 6.1 | 0.6 |
| K50007 | | KPT14-2 | 0 - 0.33 | 37.6 | 13 | 80 | 150 | 100 | 100 | 98.8 | 47.6 | 13 |
| K50008 | | KPT14-2 | 0.33 - 4.1 | 78 | 80 | 225 | 450 | 93.7 | 91.5 | 83.2 | 15.1 | 3.7 |
| K51385 | | KPT14-6 | 0.17 - 1 | 76.2 | 190 | 300 | 660 | 100 | 96.5 | 72.3 | 4 | 0.8 |
| K50845 | | KPT17-3 | 0.17 - 1 | 87.7 | 295 | 1100 | 8000 | 87.7 | 58.7 | 29 | 2.2 | 0.7 |
| K51168 | | KPT17-7 | 0.17 - 1 | 93.3 | 320 | 2000 | 9000 | 84.3 | 51.2 | 20.4 | 7 | 0.5 |
| K50778 | | KPT18-2 | 0.17 - 1.17 | 87.5 | 71.7 | 3800 | 300 | 71.7 | 35.8 | 22.3 | 4.6 | 2.5 |
| K50843 | | KPT18-3 | 0.17 - 1 | 88.9 | 600 | 8600 | 20000 | 52.4 | 24.8 | 12.5 | 2.2 | 0.7 |
| K51006 | | KPT18-5 | 0.17 - 0.83 | 86.9 | 290 | 700 | 6000 | 90.6 | 68.6 | 31.3 | 4.6 | 0.6 |
| K50016 | | KPT19-3 | 0 - 0.33 | 78 | 240 | 375 | 700 | 100 | 99.4 | 61.9 | 0.2 | 1.8 |
| K50017 | K50019 | KPT19-3 | 0.33 - 4.9 | 82.6 | 60 | 300 | 630 | 100 | 99.1 | 72.3 | 19.6 | 4.8 |
| K50019 | K50017 | KPT19-3 | 0.33 - 4.9 | 74 | 120 | 300 | 650 | 100 | 99.5 | 70.7 | 13 | 6.2 |
| K51016 | | KPT19-5 | 0.17 - 1 | 85.4 | 260 | 400 | 900 | 100 | 94.2 | 56.5 | 2.4 | 0.2 |
| K51246 | | KPT19-8 | 0.17 - 1 | 69.4 | 160 | 450 | 6000 | 90.3 | 68.1 | 49.1 | 10.2 | 4.4 |
| K51093 | | KPT20-2 | 0.17 - 1.08 | 89.5 | 220 | 800 | 15000 | 66.9 | 56.3 | 39 | 1.6 | 0.3 |
| K50830 | | KPT20-3 | 0.17 - 0.67 | 87.5 | 30 | 190 | 1600 | 96.6 | 86.5 | 69.8 | 41.2 | 2.2 |
| K51004 | | KPT20-4 | 0.17 - 1 | 91.5 | 200 | 1400 | 9000 | 85.9 | 55.3 | 32.6 | 14.4 | 2 |
| K50922 | | KPT20-5 | 0.17 - 1 | 93.2 | 130 | 800 | 8000 | 86.5 | 61.4 | 40 | 12.2 | 1.5 |
| K50978 | | KPT20-7 | 0.17 - 0.58 | 90.8 | 280 | 2300 | 12000 | 90 | 47.2 | 24.6 | 5.5 | 0.9 |
| K50875 | | KPT20-8 | 0.17 - 0.92 | 55.9 | 8.9 | 1000 | 21000 | 64.6 | 52.3 | 45.9 | 27.9 | 12.7 |
| K51362 | K51364 | KPT21-1 | 0.17 - 1 | 85.9 | 150 | 650 | 700 | 89.1 | 61.6 | 44.4 | 11.3 | 2.3 |
| K51319 | | KPT22-1 | 0.17 - 1 | 54.9 | 8 | 140 | 700 | 100 | 87.7 | 79.5 | 38 | 12.4 |
| K51344 | | KPT22-6 | 0.17 - 0.5 | 72.2 | 12 | 210 | 520 | 100 | 96.7 | 80.1 | 36.5 | 12 |
| K51366 | | KPT23-1 | 0.17 - 0.83 | 61.8 | 11 | 100 | 20000 | 74.3 | 60.7 | 54.8 | 49 | 11.8 |
| K50466 | | KPT24-1 | 0.17 - 1 | 93.6 | 300 | 575 | 1400 | 97.5 | 92.6 | 32.1 | 3 | 0.5 |
| K51306 | K51308 | KPT24-8 | 0.17 - 1 | 75.6 | 80 | 240 | 700 | 100 | 89.7 | 76.9 | 14.8 | 3.6 |

DRAFT

Table 1
Kalamazoo River Phase II Sediment Sampling
Particle Size Analysis Results

| Sample ID | Duplicate ID | Location | Depth Increment (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|----------------------|----------|------------------------------------|-------|-------|--------------------|-----------|------------|------------|-----------------|
| | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40A Sieve | #200 Sieve | 5 μm |
| K51348 | | KPT25-4 | 0 - 0.25 | 72.9 | 430 | 2800 | 8500 | 86.5 | 43.3 | 16.6 | 1.9 | 0.4 |
| K51368 | | KPT26-2 | 0.17 - 0.92 | 84.9 | 190 | 1200 | 6500 | 92.5 | 56.9 | 36.5 | 7.3 | 0.9 |
| K50021 | | KPT26-3 | 0 - 0.33 | 75.7 | 190 | 2000 | 20000 | 59 | 49.4 | 34.4 | 5.1 | 0.2 |
| K50022 | | KPT26-3 | 0.33 - 0.6 | 76.7 | 2500 | 21000 | 33000 | 22.2 | 14 | 8.1 | 1.6 | 0.6 |
| K50877 | | KPT26-4 | 0.17 - 0.5 | 78 | 310 | 2000 | 7500 | 91.8 | 49.5 | 25.5 | 3.3 | 1.3 |
| K51417 | | KPT26-5 | 0.17 - 0.83 | 75.8 | 175 | 420 | 7000 | 87.6 | 66.6 | 49.7 | 6.8 | 3.4 |
| K51355 | K51358 | KPT27-1 | 0.17 - 0.67 | 55.2 | 22 | 620 | 6500 | 85.6 | 66.1 | 42.3 | 21.9 | 9.1 |
| K51324 | | KPT27-2 | 0.17 - 1 | 74.9 | 190 | 600 | 650 | 90.4 | 65.3 | 43.9 | 5.8 | 1.3 |
| K51340 | | KPT27-5 | 0.17 - 0.42 | 88.9 | 320 | 3500 | 13000 | 79.5 | 38.6 | 24.4 | 2.7 | 0.3 |
| K51395 | | KPT27-8 | 0.17 - 0.92 | 75.2 | 200 | 2000 | 13000 | 75.6 | 50 | 36.3 | 4.2 | 1.3 |
| K50653 | | KPT28-1 | 0.17 - 1.17 | 44 | 2.3 | 23 | 425 | 100 | 90.3 | 84.1 | 69.5 | 28.2 |
| K51376 | K51378 | KPT28-8 | 0.17 - 1 | 71.9 | 130 | 250 | 800 | 97.4 | 87.8 | 74 | 10.1 | 1.8 |
| K51420 | | KPT29-1 | 0.17 - 1 | 64.7 | 27 | 190 | 11000 | 80.4 | 77.4 | 69.5 | 29.4 | 7.2 |
| K51350 | | KPT30-8 | 0.17 - 0.5 | 86.4 | 300 | 5000 | 15000 | 60.2 | 38.7 | 24.4 | 6.2 | 1.8 |
| K50669 | | KPT32-5 | 0.17 - 1 | 77.4 | 260 | 2000 | 8500 | 87.1 | 50.4 | 28.5 | 6.7 | 1.5 |
| K50649 | | KPT32-6 | 0.17 - 1 | 85.6 | 260 | 680 | 4800 | 92 | 68.9 | 37.8 | 4.1 | 1.6 |
| K50675 | | KPT33-4 | 0.17 - 1 | 86.1 | 275 | 4000 | 17000 | 67.2 | 38.6 | 24.2 | 8.8 | 1.1 |
| K50681 | | KPT33-7 | 0.17 - 0.92 | 76.1 | 240 | 600 | 5750 | 95.3 | 66.2 | 42.7 | 5.4 | 1.5 |
| K50614 | | KPT34-5 | 0.17 - 0.58 | 88.9 | 650 | 5900 | 15000 | 66.8 | 24.8 | 10 | 1.2 | 0.2 |
| K50666 | | KPT35-8 | 0 - 0.17 | 86.2 | 600 | 1700 | 4500 | 95.5 | 55.4 | 6.3 | 1 | 0.4 |
| K50667 | | KPT35-8 | 0.17 - 0.75 | 82.4 | 210 | 1800 | 14000 | 75.1 | 62.2 | 37.8 | 6 | 1.7 |
| K50573 | | KPT38-7 | 0.17 - 1 | 77.9 | 150 | 400 | 11000 | 81.3 | 68 | 51.4 | 6.4 | 3 |
| K50555 | | KPT39-1 | 0.17 - 1.17 | 55.8 | 20 | 130 | 250 | 100 | 100 | 97.5 | 18.2 | 6 |
| K50673 | | KPT39-2 | 0.17 - 0.67 | 84.3 | 400 | 6000 | 16000 | 59.9 | 30.2 | 17.2 | 2.1 | 1.1 |
| K51310 | | KPT40-2 | 0.17 - 0.83 | 92.9 | 500 | 8500 | 17000 | 53.2 | 27 | 13 | 1.8 | 0.3 |
| K50025 | | KPT40-5 | 0 - 0.33 | 84.4 | 525 | 5200 | 15000 | 46.7 | 28.2 | 13.7 | 5.5 | 0.7 |
| K50026 | | KPT40-5 | 0.33 - 1.1 | 68.9 | 180 | 300 | 2000 | 84.1 | 79.2 | 55.5 | 10.3 | 4.3 |
| K50551 | | KPT40-7 | 0.17 - 1 | 78.9 | 200 | 2600 | 14000 | 74.1 | 46.3 | 28.6 | 11.1 | 0.7 |
| K51217 | | KPT41-2 | 0.17 - 0.58 | 98.9 | 1500 | 9000 | 27000 | 51.1 | 17.9 | 7.4 | 1.8 | 0.5 |
| K51208 | | KPT42-2 | 0.17 - 1 | 85.9 | 150 | 800 | 7500 | 88.7 | 61.2 | 39.1 | 10.8 | 2.1 |
| K51190 | | KPT42-3 | 0.17 - 0.75 | 89.5 | 200 | 1000 | 11000 | 80.6 | 56.9 | 37.2 | 8.4 | 1 |
| K51203 | | KPT43-3 | 0.17 - 0.92 | 95.5 | 1200 | 4400 | 9000 | 87.5 | 20.4 | 10.6 | 2.8 | 0.5 |
| K51192 | | KPT44-3 | 0.17 - 0.67 | 78.9 | 4.5 | 17 | 50 | 100 | 97.4 | 95.9 | 94.2 | 20.6 |
| K51108 | | KPT46-6 | 0.17 - 1 | 91.1 | 425 | 2000 | 5000 | 96.7 | 50.6 | 15.9 | 6.7 | 0.3 |
| K51161 | K51162 | KPT47-1 | 0.17 - 1.17 | 53.1 | 80 | 200 | 310 | 100 | 99.7 | 95.2 | 14.8 | 4.8 |
| K51149 | | KPT49-1 | 0.17 - 1 | 70.8 | 180 | 300 | 550 | 100 | 98.4 | 76.2 | 8.2 | 3.2 |
| K51188 | | KPT49-4 | 0.17 - 1 | 95.9 | 83.7 | 3200 | 9000 | 83.7 | 37.8 | 11.2 | 4.1 | 0.2 |
| K50793 | | KPT50-6 | 0.17 - 1 | 61.4 | 22 | 1200 | 11000 | 81.3 | 55.5 | 39.4 | 21.4 | 10.3 |
| K51164 | | KPT51-2 | 0.17 - 1 | 87.2 | 175 | 570 | 6500 | 88.2 | 69.6 | 44.2 | 7.7 | 4.5 |
| K50660 | | KPT52-1 | 0.17 - 1 | 85.1 | 150 | 400 | 3100 | 98.7 | 74.7 | 53.5 | 12.5 | 4.3 |
| K50696 | | KPT53-2 | 0.17 - 0.92 | 85.4 | 190 | 280 | 410 | 100 | 95.6 | 86.6 | 3.3 | 0.9 |
| K50677 | | KPT53-3 | 0.17 - 1 | 86.3 | 300 | 700 | 3200 | 95.8 | 73.9 | 29.5 | 3.8 | 0.7 |
| K50514 | | KPT53-5 | 0 - 0.17 | 78.6 | 65 | 460 | 14000 | 76 | 69.2 | 47.8 | 17.1 | 3.2 |
| K50028 | | KPT54-3 | 0 - 0.5 | 88.1 | 60 | 700 | 7000 | 74.8 | 74.5 | 38.4 | 23.1 | 0.9 |
| K50727 | | KPT54-6 | 0.17 - 1 | 78.2 | 190 | 550 | 4750 | 97.7 | 63.3 | 46.8 | 5.3 | 1.7 |
| K50694 | | KPT56-2 | 0.17 - 0.5 | 79.7 | 225 | 380 | 3000 | 87.5 | 82.2 | 57.5 | 3.5 | 1.5 |
| K50705 | | KPT56-6 | 0.17 - 0.58 | 88.4 | 4800 | 12500 | 18000 | 35.6 | 11.2 | 11.2 | 11.2 | |
| K50612 | | KPT56-7 | 0.17 - 1.08 | 73.9 | 170 | 700 | 18000 | 79.2 | 57.8 | 44.5 | 9.2 | 4 |
| K50512 | | KPT57-1 | 0 - 0.17 | 92 | 240 | 2000 | 8500 | 88.3 | 49.6 | 27.9 | 3.9 | 0.9 |
| K50767 | | KPT57-7 | 0.17 - 0.5 | 94.4 | 1200 | 2800 | 4100 | 100 | 22 | 9.9 | 7 | 1.8 |
| K50703 | | KPT58-4 | 0.17 - 0.67 | 70.9 | 17 | 350 | 3800 | 97.3 | 74.3 | 55 | 29 | 10 |
| K50692 | | KPT58-6 | 0.17 - 0.5 | 73.8 | 165 | 450 | 4000 | 98 | 69 | 49.3 | 5.2 | 1.1 |

Table 1
Kalamazoo River Phase II Sediment Sampling
Particle Size Analysis Results

DRAFT

| Sample ID | Duplicate ID | Location | Depth Increment (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|----------------------|----------|------------------------------------|------|-------|--------------------|-----------|------------|------------|-----------------|
| | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40A Sieve | #200 Sieve | 5 μm |
| K50461 | | KPT58-7 | 0.17 - 0.67 | 81.3 | 160 | 425 | 5000 | 82.9 | 64.2 | 50.5 | 7.3 | 3 |
| K51141 | | KPT59-1 | 0.17 - 0.83 | 86.8 | 200 | 410 | 2000 | 100 | 83.1 | 51.3 | 5.4 | 0.8 |
| K50542 | | KPT59-2 | 0.17 - 0.67 | 87.1 | 70 | 5500 | 16000 | 66.3 | 28 | 20.8 | 17.9 | 0.2 |
| K51372 | | KPT59-4 | 0.17 - 0.83 | 86.7 | 400 | 1000 | 4000 | 96.5 | 70.2 | 17.3 | 4.3 | 0.9 |
| K51075 | | KPT59-8 | 0.17 - 1.08 | 62.1 | 22 | 350 | 4000 | 100 | 66.3 | 52.6 | 28.9 | 9.3 |
| K50361 | | KPT60-8 | 0.17 - 1 | 83.8 | 350 | 2000 | 7000 | 81.8 | 51.4 | 17.1 | 10.1 | 4 |
| K50030 | | KPT61-2 | 0 - 0.5 | 80.8 | 370 | 2800 | 19000 | 60.3 | 44.8 | 18.3 | 1.2 | 0.9 |
| K51441 | | KPT61-6 | 0.17 - 0.5 | 91.2 | 900 | 4500 | 13000 | 73.5 | 23.2 | 11.3 | 4.4 | 0.4 |
| K51205 | | KPT61-8 | 0.17 - 1 | 82.6 | 280 | 1800 | 11000 | 80.7 | 51.8 | 31.6 | 3.5 | 1 |
| K51173 | | KPT62-1 | 0.17 - 0.5 | 53.2 | 6 | 220 | 700 | 100 | 92.4 | 76.5 | 41.9 | 17 |
| K50344 | | KPT62-7 | 0.17 - 0.67 | 64.2 | 20 | 195 | 380 | 99.5 | 98.4 | 88.5 | 21.2 | 11.7 |
| K50283 | | KPT63-1 | 0.17 - 1 | 89.2 | 250 | 425 | 1000 | 94.9 | 90.5 | 50.2 | 5.7 | 1.1 |
| K50301 | | KPT63-2 | 0.17 - 0.92 | 84.6 | 300 | 720 | 1900 | 98.5 | 85 | 25.3 | 8.9 | 1.5 |
| K50642 | | KPT64-1 | 0.17 - 1 | 45.4 | 0.5 | 5.5 | 27 | 100 | 100 | 99.7 | 97.8 | 51.5 |
| K50217 | | KPT64-6 | 0.17 - 1 | 58 | 2 | 75 | 280 | 100 | 98.9 | 94.4 | 49.8 | 25.5 |
| K50639 | | KPT65-1 | 0.17 - 1 | 50.7 | 1.5 | 16 | 180 | 100 | 100 | 96.7 | 72.3 | 33.8 |
| K50516 | | KPT65-3 | 0 - 0.17 | 69.4 | 23 | 470 | 1500 | 99 | 92.2 | 47.9 | 23.3 | 6.4 |
| K50590 | K50592 | KPT65-5 | 0.17 - 1 | 31 | 2 | 30 | 120 | 100 | 100 | 96.9 | 81.4 | 29.6 |
| K50529 | | KPT65-6 | 0.17 - 1 | 66.3 | 3.8 | 180 | 2800 | 100 | 76.3 | 65.5 | 40.4 | 19.5 |
| K50713 | | KPT66-1 | 0.17 - 1 | 44.1 | 1.75 | 11 | 53 | 100 | 100 | 97.1 | 91.1 | 28.6 |
| K50597 | | KPT66-2 | 0.17 - 1 | 43.5 | 2.6 | 15 | 40 | 100 | 99.9 | 99.1 | 95 | 28.2 |
| K50521 | | KPT66-3 | 0.17 - 1 | 44.9 | 1 | 7.3 | 55 | 100 | 100 | 98.7 | 91.4 | 45.8 |
| K50634 | | KPT66-4 | 0.17 - 1 | 41.8 | 0.5 | 6.6 | 44 | 100 | 100 | 99.2 | 96.3 | 45.4 |
| K50544 | | KPT66-5 | 0.17 - 1 | 42.2 | 1 | 5.8 | 30 | 100 | 100 | 99.6 | 82.6 | 50.5 |
| K50871 | | KPT66-6 | 0.17 - 1 | 59.8 | 4.8 | 470 | 3300 | 93 | 73.9 | 49.3 | 43.6 | 19 |
| K50960 | | KPT66-7 | 0.17 - 1 | 41.6 | 1.9 | 11 | 40 | 100 | 100 | 99.3 | 95.1 | 30.8 |
| K50510 | | KPT67-3 | 1 - 2.08 | 44.8 | 3.2 | 25 | 67 | 100 | 98.7 | 96.4 | 88.7 | 25.7 |
| K50537 | | KPT67-5 | 0.17 - 1 | 45.3 | 1 | 6.6 | 37 | 100 | 99.9 | 99.3 | 97.1 | 46.7 |
| K50656 | | KPT67-6 | 0.17 - 1 | 40 | 0.5 | 6.5 | 32 | 100 | 99.9 | 99.1 | 96.1 | 45.4 |
| K50557 | | KPT68-2 | 0.17 - 0.75 | 89.9 | 470 | 1750 | 13000 | 81.3 | 53.9 | 13.1 | 1.3 | 0.3 |
| K50498 | | KPT68-3 | 0.17 - 1 | 86.6 | 520 | 1400 | 3000 | 100 | 69.8 | 9.4 | 5.9 | 0.3 |
| K50032 | | KPT68-4 | 0 - 0.5 | 61.8 | 15 | 1500 | 13500 | 60.1 | 52.6 | 41.4 | 27.8 | 8.2 |
| K50519 | | KPT69-3 | 0.17 - 1 | 93.9 | 850 | 3100 | 9500 | 84.5 | 29.9 | 8.7 | 3 | 0.7 |
| K50534 | | KPT69-5 | 0.17 - 1 | 87.3 | 340 | 700 | 2600 | 98.3 | 80.5 | 25.3 | 3.1 | 0.2 |
| K50508 | | KPT69-7 | 0.17 - 1 | 87.6 | 290 | 1750 | 14000 | 79.2 | 52.6 | 29.3 | 2.5 | 1.1 |
| K51303 | | KPT69-8 | 0.17 - 0.58 | 83.5 | 240 | 5200 | 14000 | 66.2 | 36.5 | 22.2 | 11 | 3.8 |
| K51083 | | KPT70-2 | 0.17 - 1 | 55 | 55 | 240 | 850 | 93.8 | 87.3 | 74.7 | 18.5 | 2.9 |
| K51342 | | KPT70-4 | 0.17 - 0.5 | 89.1 | 300 | 2500 | 1000 | 82.6 | 45.7 | 26.9 | 3.9 | 1.3 |
| K51147 | | KPT70-5 | 0.17 - 1 | 90.3 | 320 | 900 | 3000 | 95.6 | 67.9 | 29.3 | 3.3 | 0.2 |
| K50969 | | KPT70-6 | 0.17 - 1 | 55.1 | 36 | 300 | 2200 | 96.7 | 82.7 | 63.9 | 21.9 | 7.4 |
| K51044 | | KPT70-8 | 0.17 - 1 | 95.1 | 420 | 3600 | 11000 | 80.9 | 36.2 | 16 | 4.1 | 0.6 |
| K51139 | | KPT71-4 | 0.17 - 1 | 85.3 | 290 | 1500 | 9000 | 85 | 53.7 | 29 | 4.6 | 0.6 |
| K50318 | | KPT72-3 | 0.17 - 1 | 91.4 | 450 | 1500 | 3800 | 94 | 59.6 | 14.4 | 4.9 | 0 |
| K50347 | | KPT72-4 | 0.17 - 1 | 59.4 | 6 | 150 | 700 | 94.1 | 90.1 | 78.9 | 40.8 | 17.2 |
| K50335 | | KPT72-6 | 0.17 - 1 | 93.7 | 65 | 2300 | 4300 | 89 | 43.9 | 27.7 | 18 | 3.7 |
| K51048 | | KPT72-7 | 0.17 - 1 | 88.1 | 350 | 850 | 1600 | 100 | 93.9 | 17.5 | 10.7 | 0.6 |
| K51077 | | KPT73-1 | 0.17 - 1.17 | 29.2 | 5 | 40 | 170 | 100 | 100 | 95 | 74.3 | 19.5 |
| K50038 | | KPT73-2 | 0 - 0.33 | 95.1 | 140 | 350 | 2000 | 97.6 | 84.5 | 55.6 | 5.8 | 3.7 |
| K50039 | | KPT73-2 | 0.33 - 4.4 | 77.8 | 140 | 300 | 1500 | 91.6 | 86.3 | 68.8 | 10.3 | 4.5 |
| K51143 | | KPT73-4 | 0.17 - 1 | 59.2 | 17 | 80 | 210 | 100 | 98.9 | 94.8 | 46.4 | 8.4 |
| K51057 | | KPT73-5 | 0.17 - 1 | 43.2 | 4.5 | 35 | 100 | 100 | 97.5 | 77.7 | 20.6 | |
| K51063 | | KPT74-2 | 0.17 - 1 | 34.8 | 5 | 60 | 1100 | 100 | 99.9 | 71.9 | 54 | 18 |

DRAFT

Table 1
Kalamazoo River Phase II Sediment Sampling
Particle Size Analysis Results

| Sample ID | Duplicate ID | Location | Depth Increment (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|----------------------|----------|------------------------------------|------|-------|--------------------|-----------|------------|------------|-----------------|
| | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40A Sieve | #200 Sieve | 5 μm |
| K50320 | | KPT74-4 | 0.17 - 1 | 39.1 | 0.8 | 8 | 65 | 100 | 98.8 | 95.5 | 87 | 45.2 |
| K50760 | | KPT74-6 | 0.17 - 1 | 87.5 | 520 | 1500 | 3800 | 96.4 | 64.5 | 9.5 | 1.8 | 1.3 |
| K50209 | | KPT75-2 | 0.17 - 1 | 41.2 | 3 | 60 | 230 | 100 | 100 | 94.5 | 54.1 | 20.1 |
| K51105 | | KPT76-3 | 0.17 - 1 | 15.5 | 16 | 160 | 1300 | 100 | 100 | 58 | 48.5 | 4.6 |
| K51101 | | KPT76-5 | 0.17 - 1 | 24.9 | 30 | 130 | 650 | 100 | 99.6 | 74.6 | 45.3 | 3.4 |
| K50255 | | KPT77-1 | 0.17 - 1 | 38.6 | 1.3 | 15 | 70 | 100 | 100 | 98.5 | 86 | 35.7 |
| K50243 | | KPT77-3 | 0.17 - 1 | 33.1 | 0.5 | 5.5 | 42 | 100 | 100 | 99.1 | 93.6 | 50.9 |
| K50825 | | KPT77-8 | 0.17 - 1 | 86.6 | 200 | 350 | 700 | 100 | 97.5 | 68.5 | 2.7 | 0.7 |
| K50879 | | KPT78-6 | 0.17 - 1 | 74.5 | 40 | 180 | 230 | 100 | 99.5 | 98.5 | 21.9 | 9.1 |
| K50907 | | KPT79-4 | 0.17 - 1 | 72.9 | 40 | 225 | 375 | 100 | 99.3 | 93.1 | 20.3 | 6.2 |
| K50045 | | KPT79-5 | 0 - 0.33 | 41 | 6 | 40 | 180 | 100 | 100 | 95.3 | 71.6 | 18 |
| K50046 | | KPT79-5 | 0.33 - 3.1 | 71 | 85 | 200 | 350 | 100 | 100 | 96.8 | 13.3 | 3.9 |
| K50364 | | KPT79-6 | 0.17 - 1 | 43.5 | 1.3 | 10 | 90 | 100 | 99.9 | 99.3 | 81.4 | 38 |
| K51098 | | KPT79-7 | 0.17 - 0.67 | 48.8 | 44 | 400 | 3500 | 95 | 77.5 | 51.6 | 19.8 | 6.2 |
| K51053 | | KPT80-2 | 0.17 - 0.42 | 96.9 | 850 | 6700 | 14000 | 64.7 | 20.2 | 11.3 | 3.1 | 0.2 |
| K51046 | | KPT81-5 | 0.17 - 0.58 | 97 | 420 | 4700 | 15000 | 64.4 | 32.4 | 15.5 | 2.5 | 0.6 |
| K51091 | | KPT82-4 | 0.17 - 1 | 91.8 | 620 | 2900 | 9000 | 84.1 | 41.8 | 8.5 | 3.2 | 0.3 |
| K51019 | | KPT82-6 | 0.17 - 0.75 | 88.2 | 210 | 660 | 14000 | 73.4 | 59.8 | 43.5 | 7.2 | 1 |
| K51042 | | KPT82-7 | 0.17 - 0.5 | 84.1 | 320 | 750 | 1800 | 100 | 87.7 | 26 | 3.2 | 0.4 |
| K51055 | | KPT82-8 | 0.17 - 0.67 | 37.5 | 55 | 170 | 280 | 100 | 97.6 | 92.8 | 24.4 | 3.2 |
| K50191 | | KPT85-6 | 0.17 - 1 | 84 | 140 | 360 | 1900 | 92.6 | 85.3 | 58.5 | 10.8 | 4.8 |
| K51073 | | KPT86-1 | 0.17 - 0.67 | 89.7 | 380 | 8000 | 30000 | 51.5 | 39.4 | 19.4 | 3.9 | 0.7 |
| K51126 | | KPT87-6 | 0.17 - 0.75 | 66.6 | 75 | 200 | 2000 | 90.8 | 83.4 | 77.3 | 15.8 | 4.6 |
| K51040 | | KPT88-2 | 0.17 - 1 | 95.8 | 65 | 2100 | 5000 | 98.2 | 47.6 | 44.4 | 18.7 | 0 |
| K51170 | K51171 | KPT88-3 | 0.17 - 1 | 90.8 | 410 | 2200 | 4300 | 97.4 | 44.6 | 16.9 | 6.7 | 0.2 |
| K51152 | | KPT88-7 | 0.17 - 1.25 | 63.3 | 11 | 175 | 380 | 100 | 97.5 | 87.3 | 40.4 | 11.6 |
| K51439 | | KPT89-3 | 0.17 - 1 | 90.4 | 360 | 900 | 2900 | 95.4 | 78.1 | 20.1 | 1.1 | 0.7 |
| K50850 | | KPT89-6 | 0.17 - 1 | 87.5 | 400 | 1100 | 2400 | 99.2 | 80.9 | 16.8 | 13.6 | 0.3 |
| K50742 | | KPT90-1 | 0.17 - 1 | 79.2 | 80 | 150 | 225 | 100 | 95.9 | 94.8 | 12.8 | 2.9 |
| K50419 | | KPT90-2 | 0 - 0.17 | 87.3 | 230 | 1700 | 8000 | 68.2 | 51.4 | 34.2 | 6 | 0.7 |
| K50420 | | KPT90-2 | 0.17 - 1 | 90.8 | 300 | 690 | 2000 | 97.1 | 85 | 30.3 | 4.4 | 0.3 |
| K50725 | | KPT90-3 | 0.17 - 1 | 91.9 | 380 | 1200 | 3800 | 94.6 | 66.2 | 19 | 5.3 | 0.1 |
| K50357 | | KPT90-4 | 0.17 - 1 | 89.2 | 260 | 610 | 2250 | 94.4 | 82.4 | 37.3 | 2.6 | 0.5 |
| K50749 | K50751 | KPT90-7 | 0.17 - 1 | 72.1 | 160 | 225 | 370 | 97.5 | 97.3 | 92.1 | 8.2 | 4 |
| K50730 | K50732 | KPT91-1 | 0.17 - 1 | 81.1 | 93 | 185 | 325 | 98.7 | 94.7 | 88.7 | 9.4 | 3.1 |
| K51066 | | KPT91-3 | 0.17 - 1 | 89.9 | 450 | 1100 | 2400 | 99.3 | 80.8 | 15.1 | 2.4 | 0.3 |
| K51195 | | KPT91-3 | 0.17 - 1 | 92.9 | 70 | 1500 | 3500 | 100 | 60.6 | 23.6 | 18 | 0.2 |
| K50053 | | KPT91-4 | 0 - 0.33 | 86.7 | 490 | 1200 | 3000 | 96.7 | 74.7 | 13.1 | 2.3 | 0.8 |
| K50054 | | KPT91-4 | 0.33 - 5.1 | 78.5 | 200 | 480 | 1200 | 99.1 | 95.4 | 59.7 | 10.7 | 4.3 |
| K50709 | | KPT91-6 | 0.17 - 1 | 81.6 | 160 | 300 | 480 | 100 | 99.9 | 81.2 | 5.3 | 1.5 |
| K50788 | | KPT92-2 | 0.17 - 0.83 | 75.1 | 80 | 950 | 1850 | 100 | 89.4 | 23.6 | 15.5 | 7.5 |
| K50399 | | KPT92-3 | 0.17 - 1.17 | 90.3 | 500 | 1100 | 2500 | 99 | 80 | 10.3 | 3.6 | 0.9 |
| K50410 | | KPT92-4 | 0.17 - 1.5 | 91.3 | 560 | 1600 | 4000 | 90.1 | 61.5 | 8.1 | 1.1 | 0.5 |
| K51297 | | KPT92-7 | 0.17 - 1 | 88.7 | 350 | 7000 | 1800 | 100 | 89.5 | 58.3 | 3.5 | 0.4 |
| K50986 | | KPT92-8 | 0.17 - 1 | 40 | 3.8 | 28 | 240 | 100 | 100 | 88.8 | 75.9 | 21.1 |
| K50999 | | KPT93-1 | 0.17 - 1 | 41.9 | 1.5 | 13 | 70 | 100 | 100 | 95.3 | 86.5 | 34.2 |
| K50563 | | KPT93-3 | 0.17 - 1 | 86.6 | 310 | 700 | 1600 | 99.7 | 88.3 | 30.2 | 3 | 0.7 |
| K50559 | | KPT93-5 | 0.17 - 1 | 95.3 | 275 | 580 | 1800 | 98.7 | 87.4 | 40.8 | 3.4 | 0.3 |
| K50292 | | KPT94-3 | 0.17 - 1.17 | 84.6 | 225 | 310 | 425 | 99.1 | 97.7 | 83.6 | 2.1 | 0.7 |
| K50296 | | KPT94-4 | 0.17 - 1 | 76 | 180 | 300 | 425 | 97.8 | 96 | 83.5 | 4.3 | 2.3 |
| K50304 | | KPT94-6 | 0.17 - 0.833 | 76.7 | 150 | 320 | 1700 | 93.6 | 86.5 | 63.1 | 9.1 | 4 |
| K51210 | | KPT94-8 | 0.17 - 1 | 82.9 | 170 | 320 | 1000 | 100 | 90.4 | 64.9 | 9.2 | 2.2 |

Table 1
Kalamazoo River Phase II Sediment Sampling
Particle Size Analysis Results

DRAFT

| Sample ID | Duplicate ID | Location | Depth Increment (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|----------------------|----------|------------------------------------|-------|-------|--------------------|-----------|------------|------------|-----------------|
| | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40A Sieve | #200 Sieve | 5 μm |
| K50718 | | KPT95-2 | 0.17 - 0.5 | 89.5 | 270 | 3500 | 9750 | 83.4 | 36.8 | 19.3 | 2 | 0.2 |
| K50720 | K50723 | KPT95-7 | 0.17 - 1 | 83.3 | 75 | 210 | 1000 | 98.2 | 86.4 | 77.7 | 16.2 | 1.8 |
| K50736 | | KPT97-3 | 0.17 - 0.75 | 94.9 | 340 | 3000 | 13500 | 73.6 | 44.2 | 22.9 | 1.8 | 1.3 |
| K51219 | | KPT97-4 | 0.17 - 0.58 | 91.7 | 210 | 1800 | 15000 | 76.8 | 51.7 | 31.3 | 9.9 | 0.6 |
| K50747 | | KPT98-2 | 0.17 - 0.92 | 73.6 | 0.5 | 4 | 2000 | 95 | 84.4 | 77.9 | 71.9 | 56.7 |
| K50734 | | KPT98-3 | 0.17 - 0.67 | 99.7 | 2000 | 10500 | 17500 | 43.9 | 16.1 | 16.1 | 16.1 | 16.1 |
| K51182 | | KPT98-4 | 0.17 - 0.75 | 95 | 380 | 4200 | 13000 | 73.2 | 36.8 | 19.9 | 3.4 | 0.6 |
| K50753 | | KPT99-1 | 0.17 - 1 | 77.1 | 80 | 170 | 240 | 100 | 99.9 | 98.3 | 13.2 | 3.7 |
| K51159 | | KPT100-1 | 0.17 - 0.92 | 69 | 23 | 85 | 200 | 100 | 97.9 | 94.4 | 45.4 | 8.7 |
| K50701 | | KPT100-2 | 0.17 - 1.33 | 94.4 | 575 | 4400 | 13000 | 73.6 | 28.7 | 13.4 | 2.1 | 0.2 |
| K50765 | | KPT100-3 | 0.17 - 0.5 | 89.2 | 490 | 3000 | 17000 | 71.5 | 40.8 | 13.5 | 2.5 | 2 |
| K50738 | | KPT100-7 | 0.17 - 1 | 80.3 | 190 | 290 | 510 | 98.9 | 97.4 | 80.1 | 5.9 | 2.8 |
| K50707 | | KPT101-2 | 0.17 - 1.08 | 86 | 220 | 400 | 5000 | 93.6 | 76.8 | 54.8 | 1.5 | 1 |
| K50745 | | KPT102-2 | 0.17 - 0.92 | 80.7 | 240 | 3200 | 9600 | 83.6 | 42.9 | 30 | 3.3 | 2.5 |
| K51117 | | KPT103-2 | 0.17 - 0.92 | 62.8 | 7 | 160 | 600 | 92 | 88 | 79.6 | 46.7 | 15 |
| K51011 | | KPT103-3 | 0.17 - 1 | 51.8 | 2.6 | 50 | 60 | 100 | 100 | 99.1 | 92.4 | 28 |
| K50060 | | KPT103-4 | 0 - 0.33 | 60.1 | 12 | 180 | 2000 | 89 | 84.7 | 79 | 42.2 | 11.1 |
| K50061 | K50063 | KPT103-4 | 0.33 - 2.9 | 80.1 | 32 | 900 | 7000 | 75.1 | 61.7 | 36.8 | 19.7 | 6.4 |
| K50062 | K50061 | KPT103-4 | 0.33 - 2.9 | 79.4 | 42 | 1400 | 9000 | 71.1 | 56.8 | 33.7 | 18.1 | 6.4 |
| K50864 | | KPT103-5 | 0.17 - 1.08 | 48 | 2.4 | 18 | 250 | 94.1 | 85.7 | 85 | 81.5 | 29.2 |
| K51261 | | KPT103-6 | 0.17 - 1 | 41.4 | 2 | 17 | 90 | 100 | 100 | 99.1 | 79.3 | 30.2 |
| K50117 | | KPT104-3 | 0.17 - 1 | 50 | 1.6 | 16 | 70 | 100 | 100 | 98.4 | 85.5 | 34.8 |
| K51235 | K51238 | KPT104-4 | 0.17 - 1 | 51.9 | 2 | 17 | 70 | 100 | 100 | 99.4 | 86.5 | 31.2 |
| K51130 | | KPT104-7 | 0.17 - 1 | 85.8 | 175 | 400 | 2000 | 97.4 | 83.5 | 54.7 | 7.3 | 2.9 |
| K51214 | | KPT105-1 | 0.17 - 1 | 76 | 5 | 70 | 220 | 100 | 96.6 | 93.4 | 50.8 | 17.7 |
| K51266 | | KPT105-3 | 0.17 - 0.83 | 94.2 | 80 | 2000 | 11000 | 76.7 | 49 | 29 | 15.6 | 3.3 |
| K51086 | | KPT105-6 | 0.17 - 1 | 41.5 | 2 | 25 | 65 | 100 | 100 | 97.1 | 89.3 | 29 |
| K50915 | | KPT106-5 | 0.17 - 1 | 84.8 | 210 | 425 | 3800 | 94.4 | 75 | 50.2 | 2.7 | 0.7 |
| K51250 | | KPT106-6 | 0.17 - 1 | 42 | 1.8 | 12 | 48 | 100 | 100 | 98.7 | 95.5 | 31.1 |
| K51270 | | KPT106-7 | 0.17 - 1 | 44.3 | 2 | 13 | 55 | 100 | 100 | 99.4 | 92.7 | 32.8 |
| K51427 | | KPT106-8 | 0.17 - 1 | 72.4 | 13 | 110 | 210 | 100 | 100 | 99.5 | 35.3 | 11.3 |
| K50894 | | KPT107-1 | 0.17 - 1 | 89.7 | 160 | 400 | 3600 | 92.1 | 78.7 | 54.3 | 10.8 | 2.4 |
| K50121 | | KPT107-2 | 0.17 - 1 | 38 | 0.5 | 6.5 | 48 | 99.7 | 99.6 | 99 | 93.6 | 46.7 |
| K50606 | | KPT107-3 | 0.17 - 1 | 83.3 | 200 | 320 | 800 | 100 | 93.3 | 70.9 | 2.3 | 0.8 |
| K50368 | | KPT107-4 | 0.17 - 1 | 76.7 | 60 | 195 | 275 | 100 | 100 | 97.3 | 17.3 | 8.5 |
| K50067 | | KPT107-5 | 0 - 0.33 | 83.9 | 210 | 450 | 2900 | 92.4 | 78.9 | 49.1 | 2.6 | 0.7 |
| K50068 | | KPT107-5 | 0.33 - 2.9 | 74.3 | 150 | 270 | 650 | 99.5 | 97.2 | 75.3 | 9.3 | 4.6 |
| K51221 | | KPT107-6 | 0.17 - 1.25 | 86.5 | 200 | 350 | 11100 | 100 | 90.6 | 62.1 | 1.7 | 0.6 |
| K50932 | | KPT108-3 | 0.17 - 1 | 82.1 | 100 | 180 | 370 | 100 | 99.6 | 89.1 | 4.5 | 1 |
| K50630 | | KPT108-7 | 0.17 - 1 | 50.1 | 3.5 | 54 | 200 | 100 | 99.9 | 96 | 58.5 | 19.4 |
| K50584 | | KPT108-8 | 0.17 - 1 | 56 | 2.4 | 27 | 140 | 100 | 100 | 97.5 | 74.3 | 24.1 |
| K50287 | | KPT109-1 | 0.17 - 1 | 80.9 | 200 | 350 | 1000 | 99 | 97.4 | 64.4 | 5.6 | 3.7 |
| K51389 | | KPT113-2 | 0.17 - 0.75 | 94.8 | 440 | 5200 | 15000 | 65.3 | 32 | 15.9 | 2.3 | 0.2 |
| K51276 | | KPT113-5 | 0.17 - 0.92 | 98.9 | 525 | 7000 | 18000 | 59.3 | 28.8 | 14.3 | 2.8 | 0.5 |
| K51259 | | KPT113-6 | 0.17 - 1 | 93.5 | 600 | 4000 | 9000 | 83.9 | 30.2 | 14.4 | 4.8 | 0.9 |
| K51274 | | KPT114-3 | 0.17 - 0.5 | 96.4 | 900 | 6500 | 15000 | 61.1 | 25.8 | 11.1 | 4.1 | 0.6 |
| K51278 | | KPT114-4 | 0.17 - 1.08 | 94.2 | 650 | 3000 | 9000 | 86.5 | 34.8 | 12 | 9.2 | 1.2 |
| K50785 | | KPT115-1 | 0.17 - 1 | 70.2 | 60 | 210 | 3000 | 99.6 | 78.3 | 68.7 | 17.8 | 4.1 |
| K50884 | | KPT115-2 | 0.17 - 1 | 83.8 | 180 | 370 | 9000 | 100 | 92.8 | 59.4 | 7 | 2.4 |
| K50796 | | KPT115-5 | 0.17 - 1 | 87.3 | 140 | 500 | 6000 | 100 | 68.1 | 47.9 | 12 | 1.7 |
| K50815 | | KPT115-6 | 0.17 - 0.83 | 69.6 | 27 | 200 | 700 | 100 | 95.6 | 75.1 | 35.3 | 9.3 |
| K50920 | | KPT117-1 | 0.17 - 1.17 | 82.9 | 190 | 600 | 12000 | 80.5 | 65.2 | 43 | 5.4 | 1.1 |

DRAFT

Table 1
Kalamazoo River Phase II Sediment Sampling
Particle Size Analysis Results

| Sample ID | Duplicate ID | Location | Depth Increment (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|----------------------|----------|------------------------------------|-------|-------|--------------------|-----------|------------|------------|-----------------|
| | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40A Sieve | #200 Sieve | 5 μm |
| K50905 | | KPT117-2 | 0.17 - 1.08 | 96.7 | 850 | 5700 | 17000 | 63.6 | 25.6 | 10.6 | 1.7 | 0.7 |
| K51442 | | KPT117-3 | 0 - 0.17 | 85.1 | 220 | 450 | 5000 | 92.5 | 76.6 | 48.2 | 1.1 | 0.6 |
| K50848 | | KPT117-6 | 0.17 - 1.25 | 95.4 | 650 | 8000 | 24000 | 54.9 | 23.9 | 11.3 | 0.7 | 0.3 |
| K50930 | | KPT118-1 | 0.17 - 0.92 | 80.8 | 140 | 550 | 7000 | 92.8 | 56.7 | 48.8 | 6.7 | 1.9 |
| K50071 | | KPT118-3 | 0 - 0.5 | 79.3 | 400 | 20000 | 30000 | 22.4 | 20.1 | 16.5 | 6.9 | 0.2 |
| K50481 | | KPT118-7 | 0.17 - 0.58 | 94.2 | 390 | 7500 | 20000 | 39.3 | 24.5 | 17.5 | 4.8 | 0.3 |
| K51128 | | KPT119-3 | 0.17 - 1 | 90.5 | 240 | 400 | 800 | 100 | 93.8 | 56.1 | 2 | 0.2 |
| K50429 | | KPT119-4 | 0.17 - 1 | 83.9 | 190 | 350 | 1600 | 95.6 | 86.9 | 60.8 | 3.5 | 0.7 |
| K50153 | | KPT119-5 | 0.17 - 1 | 76.7 | 82 | 160 | 210 | 100 | 100 | 99.7 | 10.3 | 3 |
| K51242 | | KPT119-6 | 0.17 - 1 | 50.7 | 38 | 100 | 200 | 100 | 100 | 94.1 | 35.2 | 7.3 |
| K51176 | | KPT119-7 | 0.17 - 1 | 37.6 | 8 | 35 | 160 | 100 | 100 | 92.2 | 74.1 | 13.6 |
| K51287 | | KPT119-8 | 0.17 - 1 | 33.4 | 5 | 33 | 62 | 100 | 100 | 97.4 | 87.3 | 18.6 |
| K50957 | | KPT120-1 | 0.17 - 1 | 80.7 | 140 | 210 | 350 | 100 | 98.8 | 85.9 | 7.9 | 1.4 |
| K50996 | | KPT120-3 | 0.17 - 0.5 | 79.1 | 21 | 270 | 12000 | 76.3 | 58.7 | 52.3 | 31.7 | 8.3 |
| K50823 | | KPT120-7 | 0.17 - 1.25 | 83.8 | 225 | 1600 | 10000 | 83.3 | 53.6 | 36.7 | 1.8 | 0.8 |
| K50247 | | KPT121-2 | 0.17 - 1 | 88.9 | 295 | 1700 | 9500 | 83.3 | 69.3 | 30.1 | 1.1 | 0.5 |
| K50937 | | KPT121-3 | 0.17 - 1 | 92.9 | 350 | 4750 | 13000 | 76 | 35.5 | 21.2 | 2.7 | 0.7 |
| K51285 | | KPT121-5 | 0.17 - 0.67 | 96 | 350 | 11000 | 20000 | 42.7 | 31.1 | 18.4 | 2.7 | 0.3 |
| K50891 | | KPT121-7 | 0.17 - 1 | 51.2 | 18 | 83 | 160 | 100 | 100 | 98.1 | 44.2 | 8 |
| K51391 | | KPT122-2 | 0.17 - 1 | 41.5 | 7 | 40 | 70 | 100 | 100 | 96.5 | 85.5 | 16.5 |
| K50947 | | KPT122-3 | 0.17 - 1 | 47.1 | 9 | 44 | 110 | 100 | 100 | 98.7 | 75.4 | 12.2 |
| K51184 | | KPT122-4 | 0.17 - 1 | 77.5 | 80 | 180 | 320 | 100 | 99.6 | 92.9 | 13.7 | 2.5 |
| K50983 | | KPT123-1 | 0.17 - 1 | 44.3 | 7 | 55 | 160 | 100 | 100 | 96.5 | 59.6 | 13.8 |
| K50756 | | KPT123-5 | 0.17 - 1 | 81.3 | 155 | 215 | 350 | 100 | 99.4 | 95.6 | 3.3 | 2.1 |
| K51008 | | KPT123-6 | 0.17 - 1 | 76.8 | 100 | 200 | 310 | 100 | 99.9 | 98.6 | 11.2 | 4.6 |
| K50780 | | KPT123-7 | 0.17 - 1 | 71.3 | 9 | 150 | 240 | 100 | 100 | 98.9 | 32.7 | 13.2 |
| K50331 | | KPT124-3 | 0.17 - 1 | 89.9 | 150 | 550 | 9000 | 73.1 | 62.3 | 46.4 | 12.3 | 4.3 |
| K51232 | | KPT124-4 | 0.17 - 1 | 88.2 | 170 | 310 | 600 | 87.5 | 76.2 | 64.6 | 5 | 0.6 |
| K50856 | | KPT124-5 | 0.17 - 1 | 89.4 | 275 | 1100 | 3800 | 100 | 66.8 | 31.1 | 4.6 | 0.7 |
| K50912 | | KPT124-6 | 0.17 - 1 | 85.3 | 190 | 360 | 20000 | 73.2 | 67.1 | 57.6 | 4.5 | 0.7 |
| K50374 | | KPT124-7 | 0.17 - 1 | 84.6 | 100 | 450 | 4700 | 84.9 | 74 | 48.6 | 13.5 | 2.6 |
| K50819 | | KPT125-6 | 0.17 - 1 | 86.7 | 280 | 400 | 800 | 100 | 96.6 | 55.2 | 2.3 | 0.7 |
| K50804 | | KPT125-7 | 0.17 - 1 | 86.5 | 400 | 2100 | 5000 | 97.9 | 47.2 | 17.3 | 5.9 | 0.9 |
| K50806 | | KPT125-7 | 0.17 - 1 | 83.1 | 260 | 360 | 600 | 100 | 99.9 | 70.2 | 1.9 | 0.5 |
| K51061 | | KPT126-1 | 0.17 - 1.25 | 91.9 | 380 | 5200 | 14000 | 71.6 | 31.7 | 19.1 | 3.1 | 0 |
| K51110 | | KPT126-2 | 0.17 - 1 | 91.5 | 225 | 750 | 14000 | 77.3 | 56.4 | 45.8 | 6.4 | 0.7 |
| K50269 | | KPT126-5 | 0.17 - 1 | 88.4 | 290 | 550 | 1400 | 99.5 | 95.1 | 36.9 | 6.1 | 0.7 |
| K50492 | | KPT126-7 | 0.17 - 1 | 87.5 | 330 | 1350 | 4000 | 97.9 | 60.9 | 23 | 4.3 | 0.3 |
| K50928 | | KPT127-2 | 0.17 - 0.67 | 80.2 | 180 | 640 | 6800 | 90 | 68.2 | 42.9 | 4.7 | 1 |
| K50967 | | KPT127-3 | 0.17 - 0.75 | 85.9 | 270 | 420 | 1400 | 100 | 91 | 51.4 | 1.2 | 0.5 |
| K50939 | | KPT127-5 | 0.17 - 1 | 87.3 | 270 | 420 | 900 | 100 | 95.5 | 52.2 | 2.1 | 0.6 |
| K51137 | | KPT127-7 | 0.17 - 0.5 | 86.7 | 280 | 600 | 1700 | 98.6 | 87.5 | 34.1 | 2.9 | 0.9 |
| K50774 | | KPT128-3 | 0.17 - 1 | 87 | 255 | 390 | 800 | 100 | 95.9 | 58 | 4.4 | 1.3 |
| K50074 | | KPT128-4 | 0 - 0.33 | 80.7 | 350 | 650 | 1500 | 99.3 | 94.5 | 21.9 | 3.9 | 0.8 |
| K50075 | | KPT128-4 | 0.33 - 0.9 | 85.7 | 300 | 780 | 3200 | 88 | 79 | 24.4 | 4.4 | 0.5 |
| K50955 | | KPT128-6 | 0.17 - 0.58 | 97.2 | 1300 | 7000 | 16000 | 64.2 | 17.8 | 11.9 | 2.3 | 0.3 |
| K51329 | K51330 | KPT128-6 | 0.17 - 0.83 | 89.3 | 150 | 2000 | 12000 | 77.5 | 49.3 | 30.1 | 13.8 | 0.2 |
| K50839 | | KPT129-4 | 0.17 - 1 | 85.5 | 200 | 280 | 380 | 100 | 99.9 | 96.6 | 1.8 | 0.7 |
| K51353 | | KPT129-6 | 0.17 - 0.75 | 91.5 | 550 | 3000 | 12000 | 78.3 | 40.8 | 10.8 | 2.1 | 0.6 |
| K50422 | | KPT129-8 | 0.17 - 1 | 85.3 | 190 | 350 | 600 | 80.6 | 71.9 | 59.6 | 3.2 | 0.8 |
| K50314 | | KPT130-1 | 0.17 - 1 | 78.1 | 80 | 170 | 220 | 100 | 100 | 99.9 | 15 | 6.1 |
| K51154 | | KPT130-5 | 0.17 - 1 | 85.4 | 330 | 700 | 2900 | 95.9 | 78.3 | 27.8 | 1.9 | 0.6 |

Table 1
Kalamazoo River Phase II Sediment Sampling
Particle Size Analysis Results

DRAFT

| Sample ID | Duplicate ID | Location | Depth Increment (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|----------------------|----------|------------------------------------|------|-------|--------------------|-----------|------------|------------|-----------------|
| | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40A Sieve | #200 Sieve | 5 μm |
| K50133 | | KPT131-3 | 0.17 - 1 | 91.9 | 260 | 480 | 1600 | 97.9 | 90.2 | 46 | 2.4 | 1 |
| K50329 | | KPT131-4 | 0.17 - 1 | 92.9 | 180 | 700 | 2600 | 96.4 | 79.7 | 31.9 | 13.5 | 2.9 |
| K50683 | | KPT132-1 | 0.17 - 1 | 90 | 95 | 260 | 4000 | 93.6 | 77.2 | 64.5 | 11.7 | 2.9 |
| K50776 | | KPT132-2 | 0.17 - 0.75 | 90.3 | 290 | 2250 | 15000 | 72 | 47.6 | 27.4 | 2.4 | 1.7 |
| K50616 | | KPT132-7 | 0.17 - 1 | 87.3 | 310 | 650 | 1750 | 97.8 | 87.7 | 29.2 | 3.8 | 0.8 |
| K50186 | | KPT133-1 | 0.17 - 1 | 37 | 2 | 30 | 85 | 100 | 100 | 98.5 | 81.5 | 28.7 |
| K50171 | | KPT134-3 | 0.17 - 1 | 40.8 | 1.8 | 38 | 70 | 100 | 100 | 98.6 | 86.1 | 29 |
| K50125 | | KPT134-7 | 0.17 - 1 | 55.2 | 20 | 125 | 210 | 100 | 100 | 97.7 | 27.4 | 11.6 |
| K50081 | | KPT135-2 | 0 - 0.33 | 36.1 | 2.5 | 38 | 120 | 100 | 100 | 98.5 | 70 | 23.2 |
| K50082 | | KPT135-2 | 0.33 - 4.1 | 50.9 | 1.5 | 20 | 150 | 100 | 100 | 99.5 | 67.2 | 31.1 |
| K50167 | | KPT135-7 | 0.17 - 1 | 39.9 | 2.2 | 38 | 180 | 100 | 100 | 92.4 | 69.8 | 26.5 |
| K50220 | | KPT136-6 | 0.17 - 1 | 41.5 | 0.5 | 11 | 65 | 100 | 100 | 99.2 | 89.1 | 39 |
| K50621 | | KPT136-8 | 0.17 - 1 | 37.2 | 7.2 | 40 | 100 | 100 | 100 | 95.4 | 80.6 | 13.8 |
| K50866 | | KPT137-5 | 0.17 - 1 | 41.9 | 2.4 | 19 | 90 | 100 | 100 | 98.4 | 86.1 | 28.8 |
| K51021 | | KPT137-8 | 0.17 - 1 | 37 | 3.9 | 20 | 60 | 100 | 100 | 99 | 91.6 | 22.1 |
| K50129 | | KPT138-5 | 0.17 - 1 | 84.9 | 200 | 275 | 400 | 100 | 99.7 | 92.1 | 1.3 | 1.2 |
| K50501 | | KPT139-1 | 0.17 - 1 | 84.4 | 250 | 540 | 10000 | 82.9 | 69 | 43.8 | 4.1 | 2.7 |
| K50205 | | KPT139-7 | 0.17 - 1 | 66.3 | 75 | 180 | 240 | 100 | 100 | 98.2 | 15.8 | 5.7 |
| K50395 | | KPT142-1 | 0.17 - 0.5 | 58 | 7 | 65 | 225 | 100 | 100 | 97.1 | 53.6 | 14.7 |
| K50164 | | KPT142-7 | 0.17 - 1 | 56.6 | 8 | 95 | 190 | 99.8 | 99.5 | 98.6 | 39.4 | 13.6 |
| K50250 | | KPT143-1 | 0.17 - 1 | 70.4 | 13 | 75 | 140 | 100 | 100 | 99.4 | 51 | 10.5 |
| K50227 | | KPT143-6 | 0.17 - 1 | 51.8 | 1.4 | 25 | 66 | 100 | 100 | 98.8 | 89 | 30.7 |
| K50181 | | KPT145-3 | 0.17 - 1 | 76.8 | 70 | 240 | 425 | 100 | 99.8 | 84.2 | 17.2 | 5 |
| K50448 | | KPT146-1 | 0.17 - 1 | 52 | 8 | 70 | 150 | 100 | 100 | 96.3 | 51.3 | 13.9 |
| K50086 | | KPT146-2 | 0 - 0.33 | 54.8 | 4.5 | 58 | 150 | 100 | 100 | 99.8 | 57.2 | 18.9 |
| K50087 | | KPT146-2 | 0.33 - 2.1 | 72 | 2.2 | 45 | 140 | 100 | 100 | 100 | 60.9 | 25.3 |
| K51035 | | KPT146-6 | 0.17 - 1 | 80.9 | 100 | 300 | 1100 | 100 | 90.5 | 68.1 | 13.7 | 3.5 |
| K50886 | | KPT147-7 | 0.17 - 1 | 77.1 | 10 | 88 | 185 | 100 | 100 | 98.8 | 43 | 12.4 |
| K50238 | | KPT147-8 | 0.17 - 1.17 | 48.4 | 1.4 | 16 | 75 | 100 | 100 | 99.6 | 83 | 37.1 |
| K50973 | | KPT148-1 | 0.17 - 1 | 69.4 | 8.7 | 78 | 175 | 100 | 100 | 97.7 | 49 | 13.3 |
| K51026 | | KPT148-2 | 0.17 - 1 | 39.9 | 4.7 | 40 | 110 | 100 | 99.9 | 99.3 | 75.6 | 18.7 |
| K51422 | | KPT149-6 | 0.17 - 1 | 50.3 | 9 | 50 | 125 | 100 | 100 | 98.8 | 65.1 | 11.9 |
| K50950 | | KPT149-8 | 0.17 - 1 | 48.7 | 8.5 | 46 | 110 | 100 | 100 | 98.4 | 74.4 | 12.2 |
| K50231 | | KPT150-2 | 0.17 - 1.5 | 38.7 | 1 | 11 | 100 | 100 | 100 | 99.4 | 76.4 | 38.5 |
| K50259 | | KPT15-3 | 0.17 - 1.17 | 74.3 | 3 | 43 | 135 | 100 | 100 | 99.8 | 65.9 | 20.9 |
| K50094 | | KPT150-4 | 0 - 0.33 | 63.6 | 15 | 95 | 210 | 100 | 100 | 99.3 | 38.4 | 10.5 |
| K50095 | K50096 | KPT150-4 | 0.33 - 4.2 | 69.9 | 25 | 170 | 420 | 98.8 | 98.3 | 84.3 | 23.3 | 9 |
| K50096 | K50095 | KPT150-4 | 0.33 - 4.2 | 71.1 | 29 | 160 | 410 | 99.8 | 99.4 | 84.7 | 22.4 | 7.9 |
| K51030 | | KPT150-7 | 0.17 - 1 | 72 | 85 | 180 | 310 | 100 | 100 | 93.2 | 9.6 | 3.9 |
| K50835 | | KPT150-8 | 0.17 - 1 | 83.1 | 130 | 220 | 380 | 100 | 98.4 | 89.8 | 4.2 | 1.5 |
| K50156 | | KPT151-1 | 0.17 - 1 | 81.6 | 200 | 350 | 750 | 100 | 96.4 | 64.2 | 2.4 | 1.6 |
| K50176 | | KPT151-5 | 0.17 - 1 | 50.9 | 2 | 35 | 110 | 100 | 100 | 99.4 | 72.2 | 27.7 |
| K50340 | | KPT152-5 | 0.17 - 1 | 40.8 | 1 | 20 | 60 | 100 | 100 | 99.5 | 91.8 | 30.9 |
| K50135 | | KPT153-3 | 0.17 - 1 | 35.3 | 2 | 10 | 30 | 100 | 100 | 99.8 | 99.2 | 31.5 |
| K50325 | | KPT153-4 | 0.17 - 1 | 35.2 | 0.5 | 8.5 | 35 | 100 | 100 | 98.9 | 98 | 38.9 |
| K50102 | | KPT153-6 | 0 - 0.33 | 35.3 | 3.3 | 16 | 55 | 100 | 100 | 100 | 97.2 | 28.2 |
| K50103 | K50105 | KPT153-6 | 0.33 - 4.1 | 66.5 | 3.2 | 55 | 160 | 100 | 100 | 99.5 | 55.6 | 21.3 |
| K50105 | K50103 | KPT153-6 | 0.33 - 4.1 | 67.4 | 3.2 | 55 | 160 | 100 | 99.3 | 98.9 | 56.4 | 21.3 |
| K50213 | | KPT155-4 | 0.17 - 1 | 69.3 | 6 | 85 | 185 | 100 | 100 | 99.7 | 44.7 | 15.8 |
| K50224 | | KPT155-5 | 0.17 - 1 | 50.6 | 5 | 75 | 150 | 100 | 99.9 | 99.7 | 48.6 | 19 |
| K50391 | | KPT156-1 | 0.17 - 1 | 85 | 180 | 260 | 380 | 100 | 99.9 | 95.6 | 1 | 0.5 |
| K51228 | | KPT156-8 | 0.17 - 1 | 80.7 | 75 | 190 | 460 | 100 | 98 | 82.2 | 16.9 | 4 |

Table 1
Kalamazoo River Phase II Sediment Sampling
Particle Size Analysis Results

DRAFT

| Sample ID | Duplicate ID | Location | Depth Increment (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|----------------------|----------|------------------------------------|------|-------|--------------------|-----------|------------|------------|-----------------|
| | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40A Sieve | #200 Sieve | 5 μm |
| K50580 | | KPT157-1 | 0.17 - 1 | 61.9 | 90 | 220 | 350 | 100 | 100 | 94 | 11.4 | 1.4 |
| K50799 | | KPT157-2 | 0.17 - 1 | 30.1 | 2 | 11 | 45 | 100 | 100 | 97.9 | 91.6 | 30 |
| K50810 | | KPT157-6 | 0.17 - 1 | 41.4 | 2.3 | 16 | 60 | 100 | 100 | 99.6 | 89.8 | 24.9 |
| K51290 | | KPT158-1 | 0.17 - 1.42 | 84.5 | 180 | 240 | 370 | 100 | 100 | 96.7 | 1.8 | 1 |
| K50112 | | KPT158-2 | 0.33 - 3.7 | 28.9 | 0.8 | 7.5 | 48 | 100 | 100 | 96.3 | 88.9 | 45.8 |
| K51380 | | KPT158-4 | 0.17 - 1 | 36.2 | 1.5 | 12 | 60 | 100 | 100 | 97.9 | 90.3 | 35.3 |
| K51403 | | KPT158-5 | 0.17 - 1 | 51.1 | 3 | 35 | 110 | 100 | 100 | 98.9 | 72.9 | 26.5 |
| K50352 | | KPT158-7 | 0.17 - 1 | 34.9 | 0.5 | 7 | 30 | 100 | 100 | 99.9 | 95 | 43.4 |
| K51280 | | KPT158-7 | 0.17 - 1 | 32.9 | 2 | 8.5 | 27 | 100 | 100 | 98.6 | 95.9 | 34.2 |
| K50377 | | KPT159-1 | 0.17 - 1 | 73.3 | 53 | 215 | 580 | 99.4 | 97.1 | 77.8 | 29 | 1.4 |
| K50485 | | KPT159-5 | 0.17 - 1 | 35.4 | 1 | 5 | 17 | 100 | 100 | 98.7 | 95.2 | 54.6 |
| K50141 | | PPT1-1 | 0.33 - 1 | 60.2 | 2.2 | 16 | 350 | 93.3 | 92 | 86.1 | 69.4 | 32.3 |
| K50685 | | PPT1-2 | 0.17 - 1 | 84.9 | 190 | 480 | 3000 | 99.1 | 79.1 | 46.5 | 6.7 | 2.1 |
| K50601 | | PPT1-3 | 0.17 - 1.33 | 85.1 | 250 | 700 | 13500 | 81.6 | 68.3 | 34.3 | 5.5 | 2.1 |
| K50476 | | PPT1-4 | 0.17 - 1 | 69.2 | 7 | 320 | 7000 | 80.2 | 75.3 | 57.4 | 30.4 | 15 |
| K50942 | | PPT2-1 | 0.17 - 1 | 76.6 | 190 | 300 | 600 | 99.3 | 95.8 | 76.2 | 6.2 | 1.9 |
| K50896 | | PPT2-2 | 0.17 - 1 | 83.6 | 260 | 570 | 1750 | 100 | 88.7 | 29.5 | 5.6 | 0.8 |
| K50483 | | PPT2-4 | 0.17 - 0.5 | 47.9 | 3 | 45 | 300 | 92.8 | 92.8 | 88.4 | 62.2 | 19.2 |
| K50991 | | PPT3-1 | 0.17 - 1 | 70.8 | 40 | 230 | 2700 | 98.3 | 80.6 | 58.1 | 18.8 | 8 |
| K51312 | | PPT3-2 | 0.17 - 1 | 87.2 | 290 | 1400 | 11000 | 82.3 | 54.1 | 29.7 | 5.1 | 2.4 |
| K50457 | | PPT3-3 | 0.17 - 0.67 | 72.8 | 40 | 225 | 700 | 89.2 | 84 | 73.8 | 17.6 | 5.3 |
| K51135 | | PPT4-1 | 0.17 - 1 | 81.6 | 175 | 320 | 800 | 100 | 94 | 64.7 | 9.9 | 0.9 |
| K50275 | | PPT4-2 | 0.17 - 1 | 82.3 | 210 | 470 | 2000 | 93.1 | 83.9 | 47.3 | 5.6 | 1.5 |
| K51268 | | PPT4-3 | 0.17 - 1 | 74.4 | 9 | 180 | 900 | 100 | 87.9 | 75.2 | 43.3 | 14.3 |
| K50901 | | PPT5-1 | 0.17 - 1 | 83 | 60 | 360 | 2900 | 98.1 | 81 | 56 | 7.7 | 5.2 |
| K50382 | | PPT5-2 | 0.17 - 1 | 79.6 | 170 | 380 | 3000 | 86.2 | 82.4 | 54.9 | 6.2 | 1.7 |
| K50405 | | PPT5-3 | 0.17 - 1 | 74.3 | 150 | 330 | 1100 | 98.3 | 93.5 | 62.7 | 10.6 | 3.2 |
| K50833 | | PPT5-4 | 0.17 - 1 | 82 | 220 | 720 | 8500 | 86.2 | 63.3 | 37.7 | 5.6 | 2.1 |
| K50980 | K50981 | PPT6-1 | 0.17 - 1.25 | 72.9 | 80 | 230 | 2300 | 94.3 | 83.7 | 72.7 | 13.1 | 3.4 |
| K51121 | | PPT6-2 | 0.17 - 1 | 82.4 | 180 | 300 | 580 | 99.6 | 95.8 | 75.6 | 10.3 | 2 |
| K50663 | | PPT6-3 | 0.17 - 1 | 82.7 | 250 | 500 | 1400 | 97.7 | 92.1 | 43.1 | 2.5 | 1.2 |
| K51433 | K51435 | PPT7-1 | 0.17 - 1 | 74.9 | 60 | 320 | 800 | 96.6 | 91.5 | 64.1 | 18.7 | 4.9 |
| K50626 | | PPT7-2 | 0.17 - 1 | 74.5 | 100 | 265 | 675 | 100 | 95.4 | 73.5 | 12.1 | 2.2 |
| K51412 | | PPT7-3 | 0.17 - 0.5 | 70.5 | 180 | 350 | 1100 | 99.2 | 90.6 | 57.9 | 9.1 | 3.7 |
| K50860 | | PPT7-4 | 0.17 - 1 | 84.4 | 215 | 400 | 1450 | 98.9 | 89.6 | 54.9 | 4.2 | 0.7 |
| K50234 | | PPT8-1 | 0.17 - 1 | 86.4 | 160 | 800 | 8000 | 78.1 | 63 | 40.6 | 12.1 | 1.7 |
| K51406 | | PPT8-2 | 0.17 - 1.17 | 84.1 | 250 | 430 | 1400 | 98.5 | 89.8 | 49.8 | 3.1 | 1.3 |
| K51397 | | PPT8-3 | 0.17 - 1 | 76.5 | 140 | 220 | 500 | 100 | 88.8 | 82.6 | 5.7 | 2.3 |
| K50196 | | PPT9-1 | 0.17 - 1 | 85.2 | 210 | 525 | 6000 | 81.6 | 73.4 | 44.1 | 7 | 2.6 |
| K50148 | | PPT9-2 | 0.17 - 1 | 86.9 | 260 | 650 | 2800 | 94.1 | 78.8 | 35.2 | 4 | 1.9 |
| K50264 | | PPT9-3 | 0.17 - 0.58 | 75.1 | 33 | 350 | 5500 | 82.4 | 77.2 | 57.1 | 22.1 | 7.6 |
| K50161 | | PPT10-1 | 0.17 - 0.83 | 78.1 | 10 | 250 | 3500 | 88.4 | 76.4 | 62.3 | 27.7 | 11.3 |
| K50386 | | PPT10-2 | 0.17 - 0.5 | 74.9 | 30 | 700 | 9500 | 72.9 | 61 | 44.6 | 18.5 | 7.3 |
| K50201 | | PPT11-1 | 0.17 - 1 | 70.6 | 4 | 220 | 14000 | 67.5 | 62.6 | 55.3 | 43.4 | 19.8 |
| K50272 | K50273 | PPT11-2 | 0.17 - 1 | 88.5 | 270 | 900 | 6800 | 74.7 | 58.9 | 35.4 | 3.5 | 1.1 |
| K51336 | | PPT11-3 | 0.17 - 0.58 | 81.1 | 200 | 1600 | 7000 | 92.6 | 53.4 | 34.4 | 4.7 | 1.4 |
| K51437 | | PPT12-3 | 0.17 - 1 | 81.9 | 60 | 200 | 400 | 100 | 98.4 | 85.8 | 18.2 | 3.8 |
| K51115 | | PPT13-1 | 0.17 - 0.92 | 92.8 | 130 | 525 | 6500 | 92.4 | 63.5 | 47.2 | 13.9 | 2.7 |
| K51374 | | PPT14-1 | 0.17 - 0.5 | 89.3 | 150 | 600 | 6600 | 90 | 65.8 | 43.8 | 11.1 | 2.1 |
| K50698 | K50699 | PPT14-3 | 0.17 - 0.92 | 81 | 110 | 220 | 390 | 100 | 98.2 | 89.1 | 9.6 | 5 |
| K50506 | | PPT15-2 | 0.17 - 1 | 87.4 | 380 | 1500 | 6250 | 92.7 | 64.8 | 17.5 | 8.8 | 1.9 |
| K51322 | | PPT15-3 | 0.17 - 0.5 | 52.6 | 1.5 | 7 | 140 | 100 | 99.6 | 95.7 | 78 | 48.3 |

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Table 2
Summary of Particle Size Data For Disputed Cores

| Sample ID | Duplicate ID | Location | 1993 Classification | BBL Rating | Top of Sample (ft) | Bottom of Sample (ft) | % Solids | Percentile Sizes (μm) | | | | Percent finer than | | | |
|-----------|--------------|----------|---------------------|------------|--------------------|-----------------------|----------|------------------------------------|-------|-------|--------|--------------------|-----------|------------|-----------------|
| | | | | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40 Sieve | #200 Sieve | 5 μm |
| K50452 | | KPT3-6 | FINE | 2.5 | 0.17 | 1 | 84.9 | 420 | 2500 | 6200 | 76.2 | 43.2 | 16.4 | 5.3 | 0.7 |
| K50426 | | KPT4-1 | FINE | 2 | 0.17 | 1 | 88.2 | 230 | 850 | 14000 | 67.6 | 57.6 | 39.7 | 3.1 | 0.7 |
| K50463 | | KPT4-5 | FINE | 2 | 0.17 | 1 | 93.4 | 425 | 4750 | 12000 | 50.2 | 32.3 | 16 | 5.2 | 0.3 |
| K50548 | | KPT4-6 | FINE | 2.5 | 0.17 | 1 | 89.9 | 260 | 2200 | 7800 | 91.6 | 47.7 | 29.6 | 2.6 | 0.6 |
| K51293 | K51295 | KPT5-1 | FINE | 3 | 0.17 | 1 | 91.3 | 500 | 5800 | 16000 | 69.2 | 27.6 | 14.6 | 1.8 | 0.6 |
| K51315 | | KPT5-3 | FINE | 3 | 0.17 | 1 | 79.3 | 170 | 300 | 2500 | 86.6 | 83.6 | 69.7 | 11.1 | 4.4 |
| K51332 | | KPT5-4 | FINE | 2.5 | 0.17 | 0.75 | 91.7 | 210 | 2300 | 11000 | 82.7 | 46.6 | 26.7 | 4.6 | 0.5 |
| K50526 | | KPT5-8 | FINE | 4 | 0.17 | 1 | 77.1 | 95 | 230 | 410 | 100 | 98.5 | 88.4 | 12.8 | 6 |
| K50434 | | KPT6-5 | FINE | 3 | 0.17 | 1 | 89.4 | 300 | 2200 | 8000 | 66.9 | 48.5 | 27.4 | 3.3 | 0.7 |
| K50438 | | KPT6-8 | FINE | 3.5 | 0.17 | 1.08 | 79 | 100 | 170 | 3000 | 87 | 80.7 | 62.9 | 11.1 | 2.4 |
| K50594 | | KPT12-4 | FINE | 3 | 0.17 | 1 | 86.2 | 290 | 700 | 4400 | 94.9 | 72.3 | 32.9 | 3.8 | 0.6 |
| K50845 | | KPT17-3 | FINE | 2.5 | 0.17 | 1 | 87.7 | 295 | 1100 | 8000 | 87.7 | 58.7 | 29 | 2.2 | 0.7 |
| K50843 | | KPT18-3 | FINE | 2 | 0.17 | 1 | 88.9 | 600 | 8600 | 20000 | 52.4 | 24.8 | 12.5 | 2.2 | 0.7 |
| K51006 | | KPT18-5 | FINE | 2.5 | 0.17 | 0.83 | 86.9 | 290 | 700 | 6000 | 90.6 | 68.6 | 31.3 | 4.6 | 0.6 |
| K51016 | | KPT19-5 | FINE | 4 | 0.17 | 1 | 85.4 | 260 | 400 | 900 | 100 | 94.2 | 56.5 | 2.4 | 0.2 |
| K51093 | | KPT20-2 | FINE | 3 | 0.17 | 1.08 | 89.5 | 220 | 800 | 15000 | 66.9 | 56.3 | 39 | 1.6 | 0.3 |
| K50466 | | KPT24-1 | FINE | 4 | 0.17 | 1 | 93.6 | 300 | 575 | 1400 | 97.5 | 92.6 | 32.1 | 3 | 0.5 |
| K51417 | | KPT26-5 | FINE | 3.5 | 0.17 | 0.83 | 75.8 | 175 | 420 | 7000 | 87.6 | 66.6 | 49.7 | 6.8 | 3.4 |
| K51350 | | KPT30-8 | FINE | 3 | 0.17 | 0.5 | 86.4 | 300 | 5000 | 15000 | 60.2 | 38.7 | 24.4 | 6.2 | 1.8 |
| K50573 | | KPT38-7 | FINE | 4 | 0.17 | 1 | 77.9 | 150 | 400 | 11000 | 81.3 | 68 | 51.4 | 6.4 | 3 |
| K50551 | | KPT40-7 | FINE | 3.5 | 0.17 | 1 | 78.9 | 200 | 2600 | 14000 | 74.1 | 46.3 | 28.6 | 11.1 | 0.7 |
| K50660 | | KPT52-1 | FINE | 3 | 0.17 | 1 | 85.1 | 150 | 400 | 3100 | 98.7 | 74.7 | 53.5 | 12.5 | 4.3 |
| K50696 | | KPT53-2 | FINE | 3.5 | 0.17 | 0.92 | 85.4 | 190 | 280 | 410 | 100 | 95.6 | 86.6 | 3.3 | 0.9 |
| K50677 | | KPT53-3 | FINE | 3 | 0.17 | 1 | 86.3 | 300 | 700 | 3200 | 95.8 | 73.9 | 29.5 | 3.8 | 0.7 |
| K51141 | | KPT59-1 | FINE | 3.5 | 0.17 | 0.83 | 86.8 | 200 | 410 | 2000 | 100 | 83.1 | 51.3 | 5.4 | 0.8 |
| K50318 | | KPT72-3 | FINE | 2.5 | 0.17 | 1 | 91.4 | 450 | 1500 | 3800 | 94 | 59.6 | 14.4 | 4.9 | 0 |
| K50825 | | KPT77-8 | FINE | 3.5 | 0.17 | 1 | 86.6 | 200 | 350 | 700 | 100 | 97.5 | 68.5 | 2.7 | 0.7 |
| K51019 | | KPT82-6 | FINE | 3 | 0.17 | 0.75 | 88.2 | 210 | 660 | 14000 | 73.4 | 59.8 | 43.5 | 7.2 | 1 |
| K50742 | | KPT90-1 | FINE | 3 | 0.17 | 1 | 79.2 | 80 | 150 | 225 | 100 | 95.9 | 94.8 | 12.8 | 2.9 |
| K50730 | K50732 | KPT91-1 | FINE | 3.5 | 0.17 | 1 | 81.1 | 93 | 185 | 325 | 98.7 | 94.7 | 88.7 | 9.4 | 3.1 |
| K50559 | | KPT93-5 | FINE | 3 | 0.17 | 1 | 95.3 | 275 | 580 | 1800 | 98.7 | 87.4 | 40.8 | 3.4 | 0.3 |
| K50718 | | KPT95-2 | FINE | 3 | 0.17 | 0.5 | 89.5 | 270 | 3500 | 9750 | 83.4 | 36.8 | 19.3 | 2 | 0.2 |
| K50734 | | KPT98-3 | FINE | 2.5 | 0.17 | 0.67 | 99.7 | 2000 | 10500 | 17500 | 43.9 | 16.1 | 16.1 | 16.1 | 16.1 |
| K50429 | | KPT119-4 | FINE | 3 | 0.17 | 1 | 83.9 | 190 | 350 | 1600 | 95.6 | 86.9 | 60.8 | 3.5 | 0.7 |
| K50823 | | KPT120-7 | FINE | 3 | 0.17 | 1.25 | 83.8 | 225 | 1600 | 10000 | 83.3 | 53.6 | 36.7 | 1.8 | 0.8 |
| K50756 | | KPT123-5 | FINE | 3.5 | 0.17 | 1 | 81.3 | 155 | 215 | 350 | 100 | 99.4 | 95.6 | 3.3 | 2.1 |
| K51008 | | KPT123-6 | FINE | 3.5 | 0.17 | 1 | 76.8 | 100 | 200 | 310 | 100 | 99.9 | 98.6 | 11.2 | 4.6 |
| K50331 | | KPT124-3 | FINE | 3.5 | 0.17 | 1 | 89.9 | 150 | 550 | 9000 | 73.1 | 62.3 | 46.4 | 12.3 | 4.3 |
| K51232 | | KPT124-4 | FINE | 3.5 | 0.17 | 1 | 88.2 | 170 | 310 | 600 | 87.5 | 76.2 | 64.6 | 5 | 0.6 |
| K50912 | | KPT124-6 | FINE | 3 | 0.17 | 1 | 85.3 | 190 | 360 | 20000 | 73.2 | 67.1 | 57.6 | 4.5 | 0.7 |

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Table 2
Summary of Particle Size Data For Disputed Cores

| Sample ID | Duplicate ID | Location | 1993 Classification | BBL Rating | Top of Sample (ft) | Bottom of Sample (ft) | % Solids | Percentile Sizes (μm) | | | Percent finer than | | | | |
|-----------|--------------|----------|---------------------|------------|--------------------|-----------------------|----------|------------------------------------|-----|-------|--------------------|-----------|-----------|------------|-----------------|
| | | | | | | | | 16% | 50% | 84% | Gravel | #10 Sieve | #40 Sieve | #200 Sieve | 5 μm |
| K50806 | | KPT125-5 | FINE | 2.5 | 0.17 | 1 | 83.1 | 260 | 360 | 600 | 100 | 99.9 | 70.2 | 1.9 | 0.5 |
| K50819 | | KPT125-6 | FINE | 3 | 0.17 | 1 | 86.7 | 280 | 400 | 800 | 100 | 96.6 | 55.2 | 2.3 | 0.7 |
| K51110 | | KPT126-2 | FINE | 2.5 | 0.17 | 1 | 91.5 | 225 | 750 | 14000 | 77.3 | 56.4 | 45.8 | 6.4 | 0.7 |
| K50269 | | KPT126-5 | FINE | 3 | 0.17 | 1 | 88.4 | 290 | 550 | 1400 | 99.5 | 95.1 | 36.9 | 6.1 | 0.7 |
| K50967 | | KPT127-3 | FINE | 3 | 0.17 | 0.75 | 85.9 | 270 | 420 | 1400 | 100 | 91 | 51.4 | 1.2 | 0.5 |
| K50939 | | KPT127-5 | FINE | 3 | 0.17 | 1 | 87.3 | 270 | 420 | 900 | 100 | 95.5 | 52.2 | 2.1 | 0.6 |
| K51137 | | KPT127-7 | FINE | 3 | 0.17 | 0.5 | 86.7 | 280 | 600 | 1700 | 98.6 | 87.5 | 34.1 | 2.9 | 0.9 |
| K50839 | | KPT129-4 | FINE | 3.5 | 0.17 | 1 | 85.5 | 200 | 280 | 380 | 100 | 99.9 | 96.6 | 1.8 | 0.7 |
| K50314 | | KPT130-1 | FINE | 3.5 | 0.17 | 1 | 78.1 | 80 | 170 | 220 | 100 | 100 | 99.9 | 15 | 6.1 |
| K51154 | | KPT130-5 | FINE | 2 | 0.17 | 1 | 85.4 | 330 | 700 | 2900 | 95.9 | 78.3 | 27.8 | 1.9 | 0.6 |
| K50616 | | KPT132-7 | FINE | 3 | 0.17 | 1 | 87.3 | 310 | 650 | 1750 | 97.8 | 87.7 | 29.2 | 3.8 | 0.8 |
| K50391 | | KPT156-1 | FINE | 4 | 0.17 | 1 | 85 | 180 | 260 | 380 | 100 | 99.9 | 95.6 | 1 | 0.5 |
| K50382 | | PPT5-2 | FINE | 3 | 0.17 | 1 | 79.6 | 170 | 380 | 3000 | 86.2 | 82.4 | 54.9 | 6.2 | 1.7 |
| K51121 | | PPT6-2 | FINE | 2.5 | 0.17 | 1 | 82.4 | 180 | 300 | 580 | 99.6 | 95.8 | 75.6 | 10.3 | 2 |

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Table 3. Cores to be replaced.

| TRANSECT | LOCATION | RATING | MDNR DISPUTED |
|----------|----------|--------|------------------|
| 3 | 6 | 2.5 | X |
| 4 | 1 | 2 | X |
| 4 | 5 | 2 | X |
| 4 | 6 | 2.5 | X |
| 5 | 1 | 3 | X |
| 5 | 4 | 2.5 | X |
| 6 | 5 | 3 | X |
| 17 | 3 | 2.5 | X |
| 18 | 3 | 2 | X |
| 18 | 5 | 2.5 | X |
| 26 | 4 | 2 | |
| 30 | 8 | 3 | X |
| 57 | 7 | 3 | |
| 68 | 2 | 2.5 | |
| 68 | 3 | 2.5 | |
| 72 | 3 | 2.5 | X |
| 74 | 6 | 3 | |
| 82 | 7 | 2.5 | |
| 91 | 3 | 2.5 | |
| 92 | 3 | 3 | |
| 92 | 4 | 3 | |
| 95 | 2 | 3 | X |
| 97 | 4 | 3 | |
| 120 | 7 | 3 | X |
| 124 | 5 | 2.5 | |
| 125 | 7 | 2.5 | |
| 126 | 2 | 2.5 | X |
| 126 | 7 | 3 | |
| 130 | 5 | 2 | X |

Figure 1A. Kalamazoo River Sediment Original Classifications

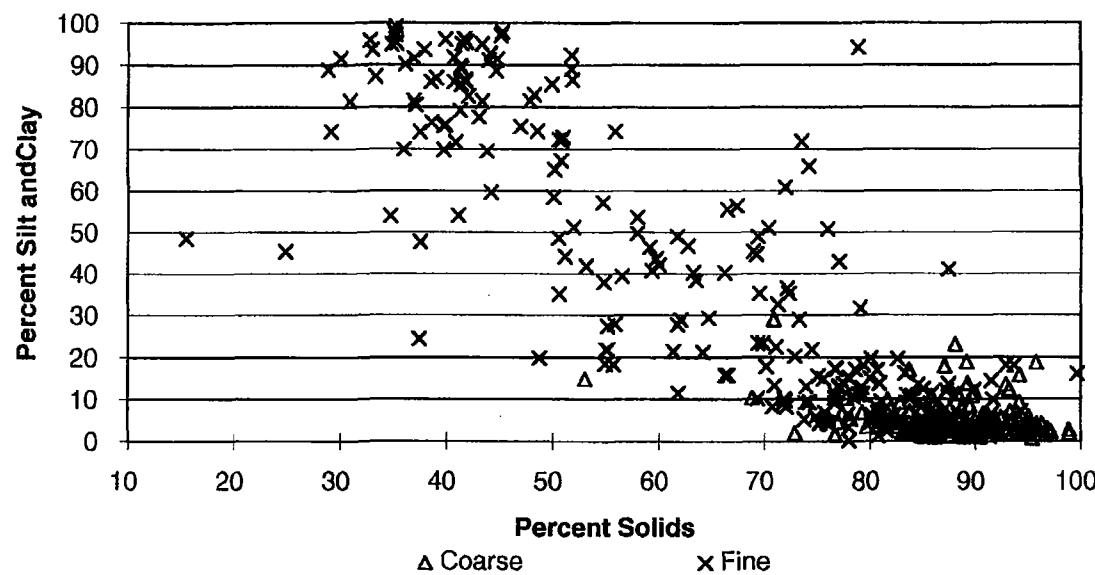
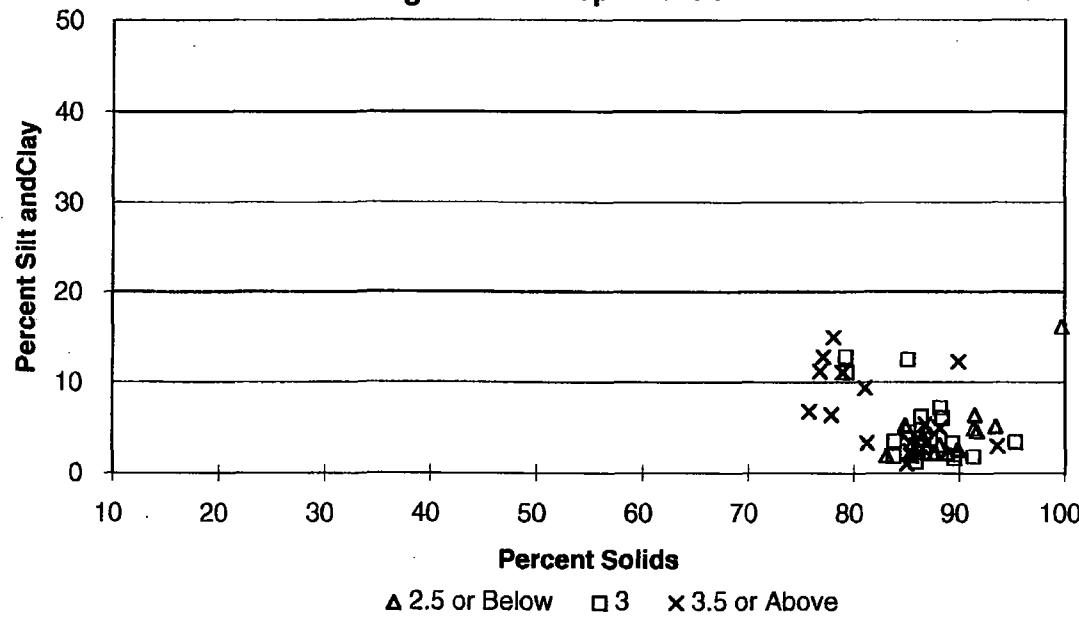


Figure 1B. Disputed Cores



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Figure 2A. Kalamazoo River Sediment Original Classifications

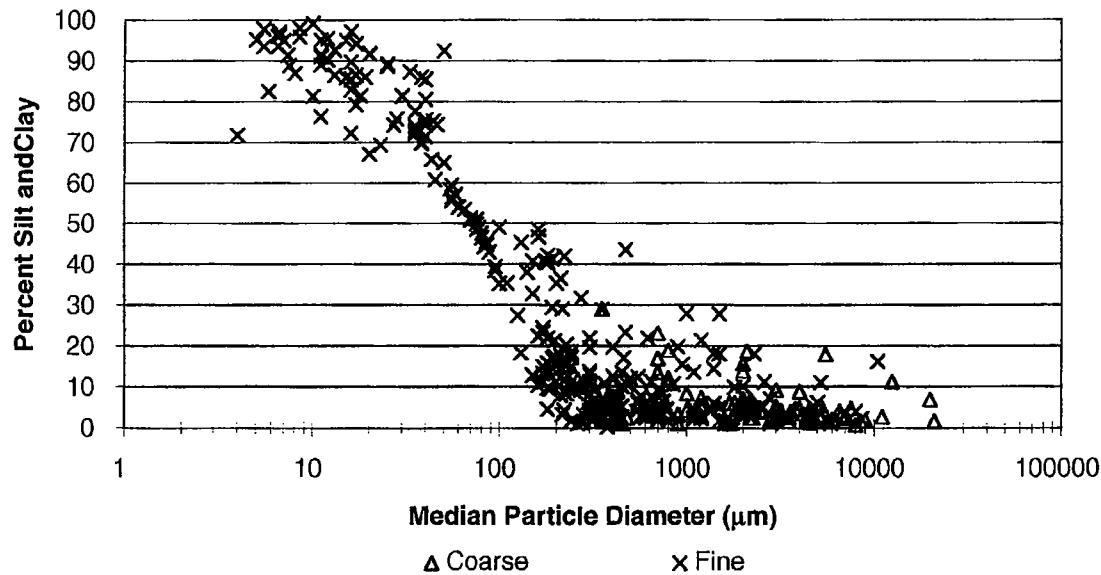
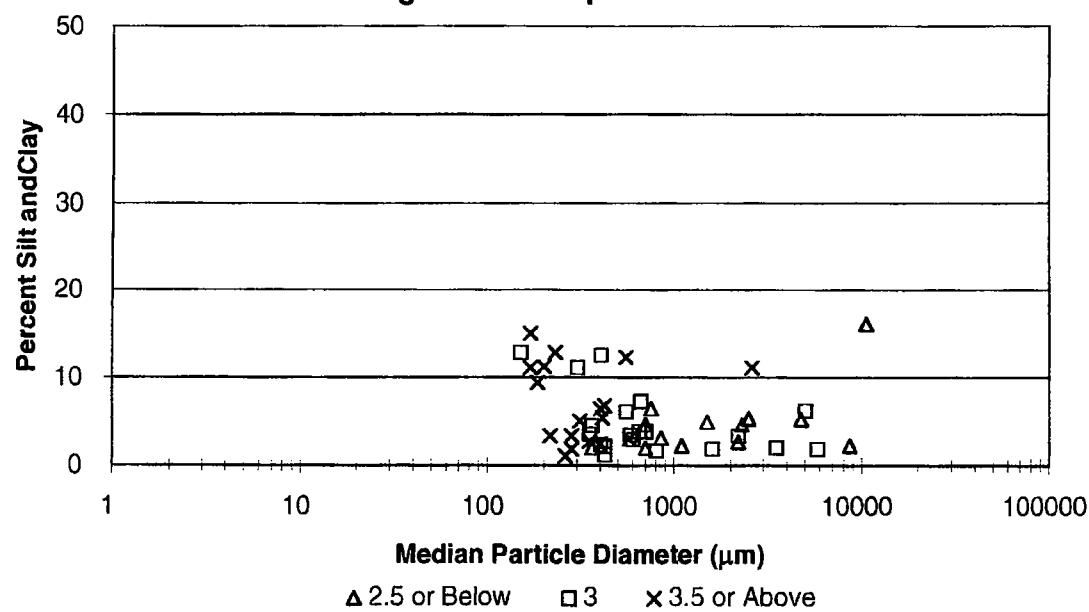


Figure 2B. Disputed Cores



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Figure 3A. Kalamazoo River Sediment Original Classifications

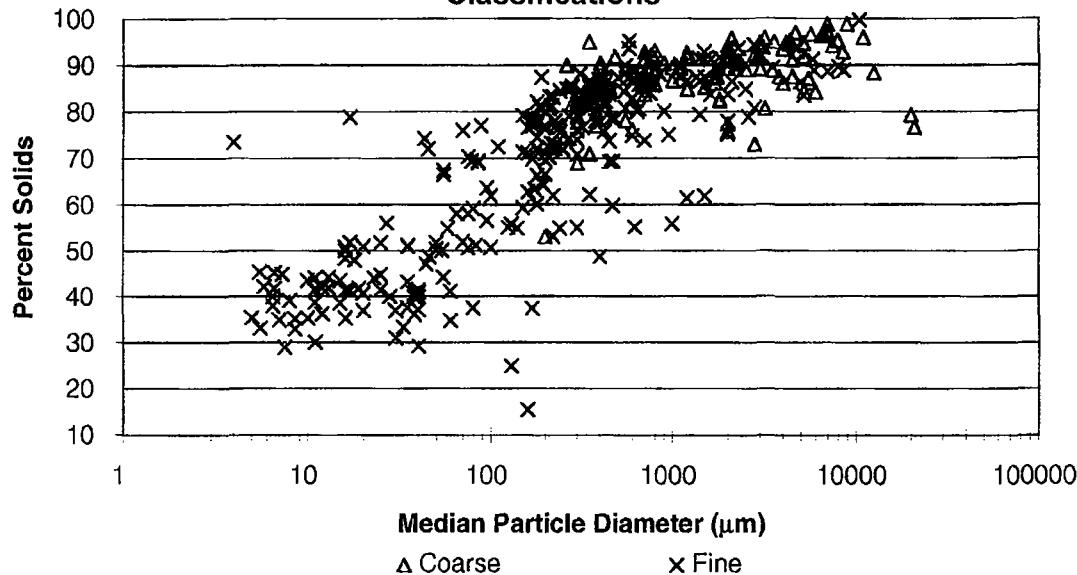
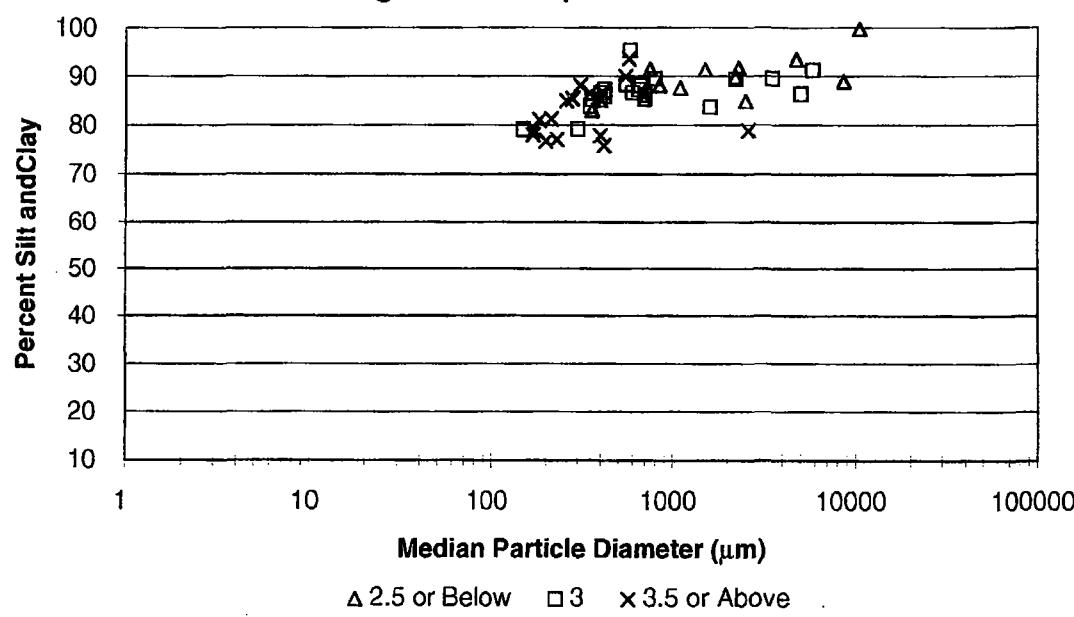
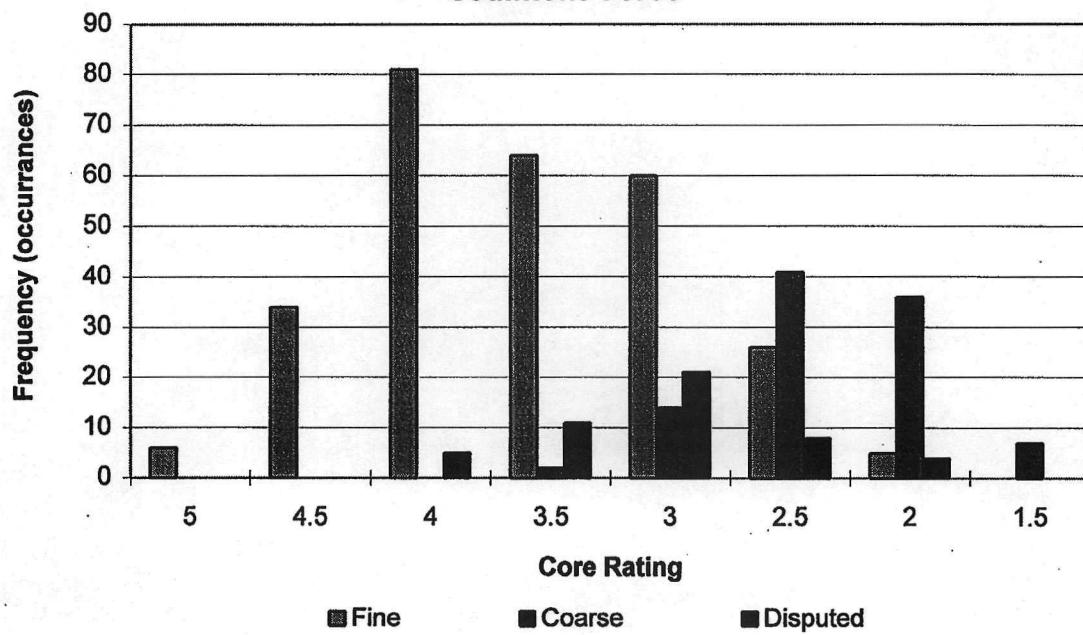


Figure 3B. Disputed Cores



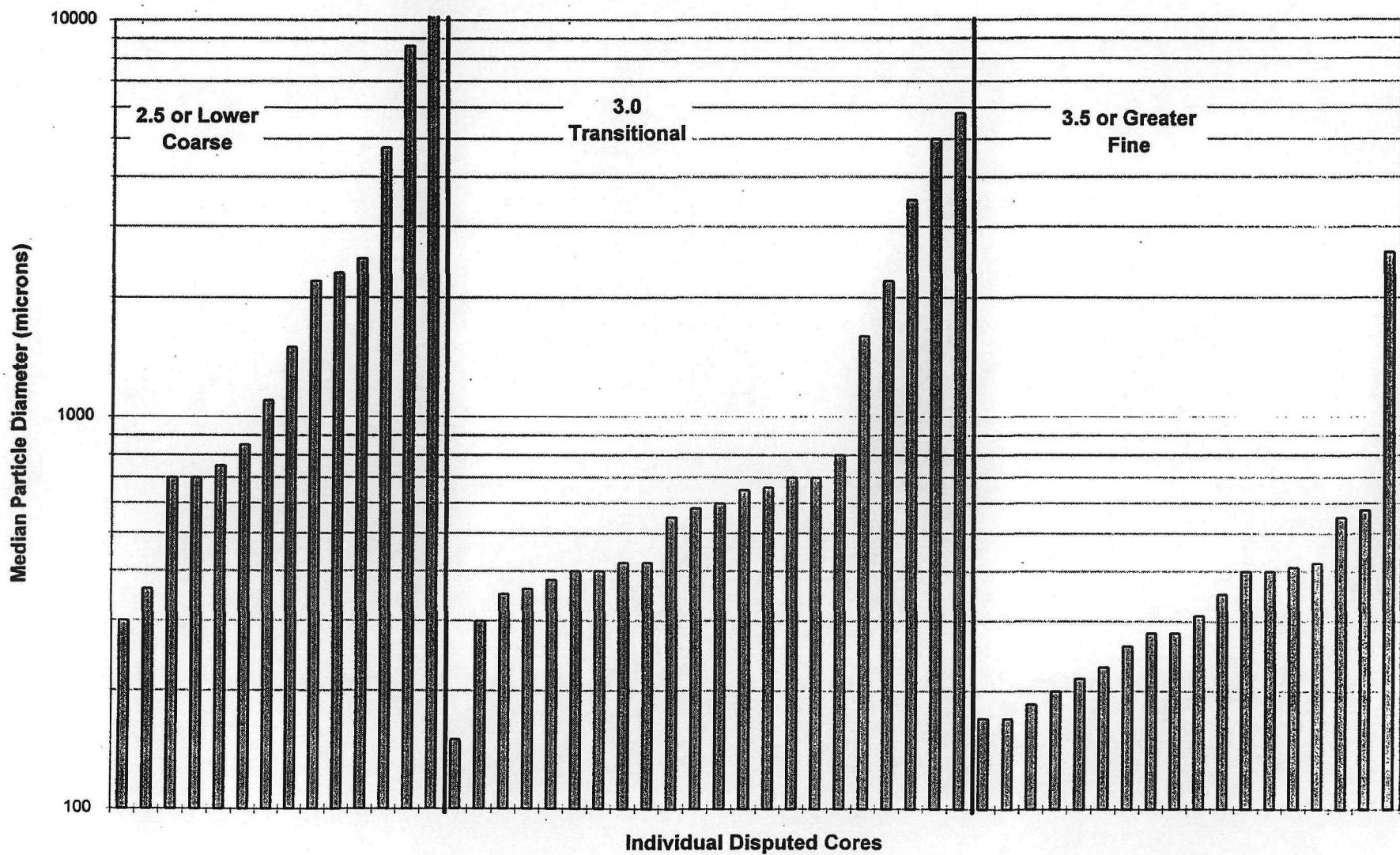
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**Figure 4. Frequency Distribution of Kalamazoo River
Sediment Cores**



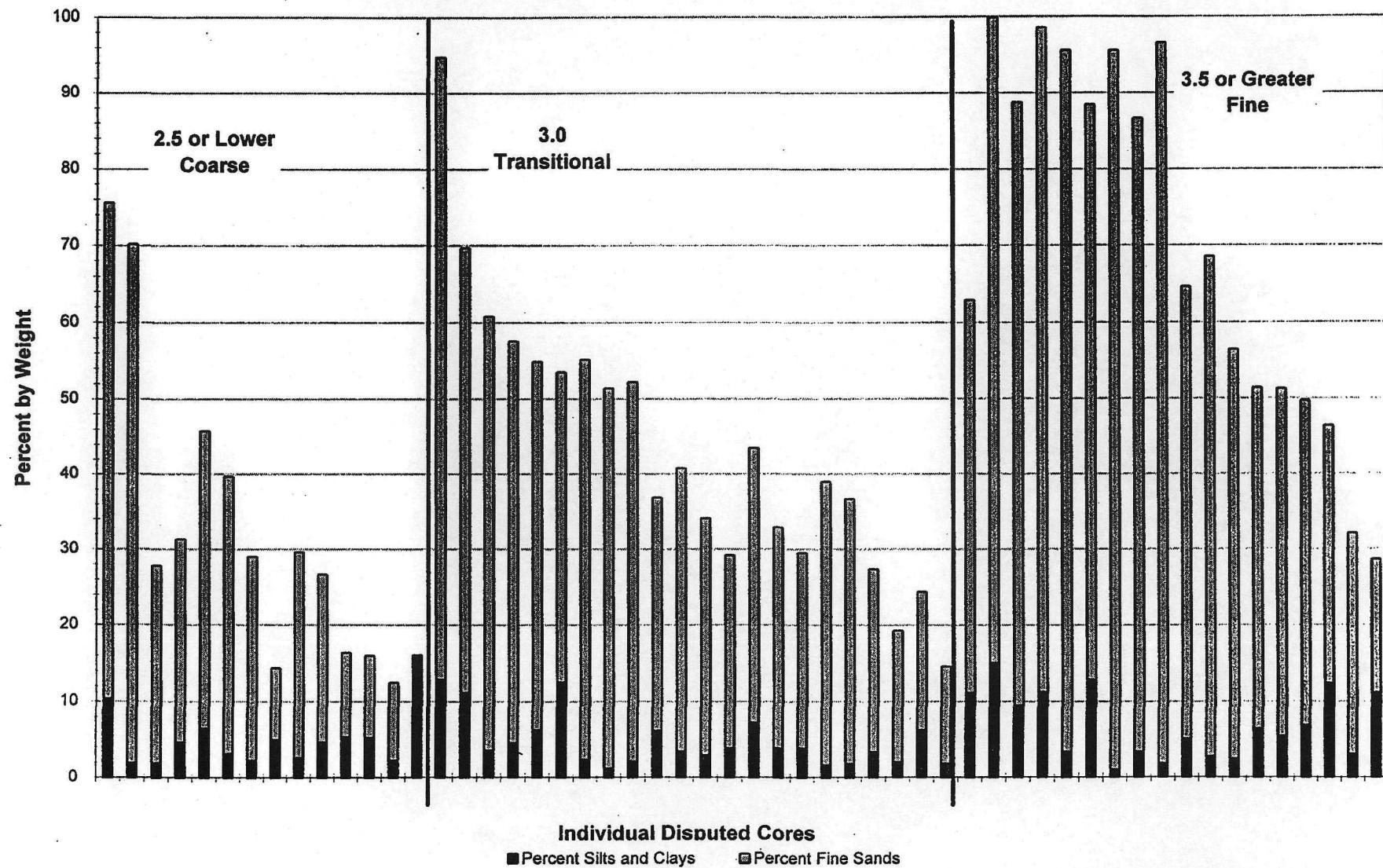
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Figure 5. Median Particle Size by Sediment Classification for the Disputed Cores



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Figure 6. Percent Fine Material by Sediment Classification for the Disputed Cores



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Figure 7. All Cores by New Classification

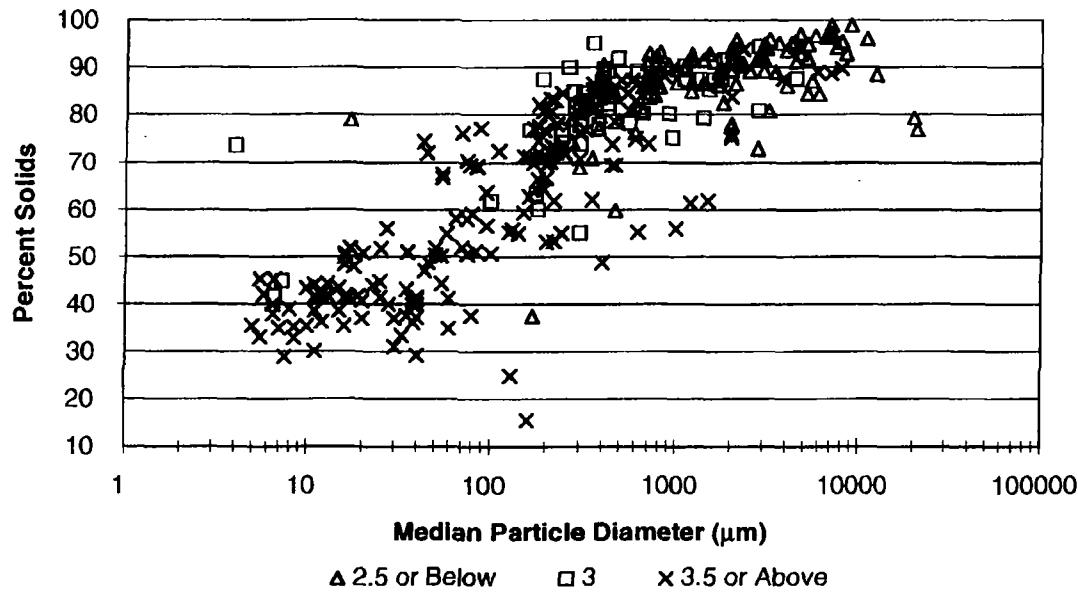
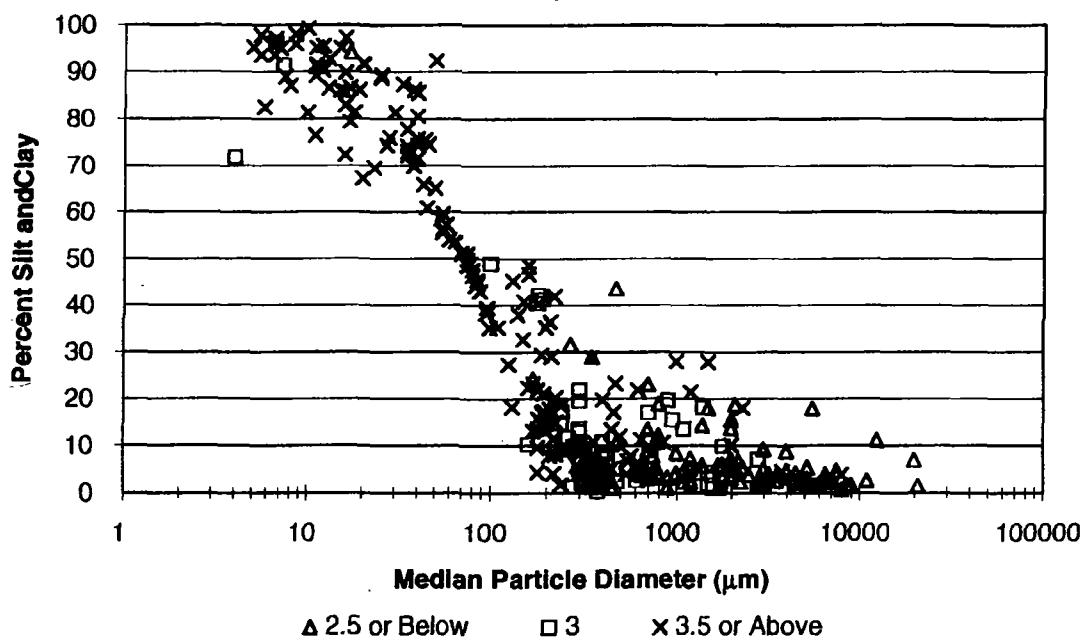


Figure 8. All Cores by New Classification



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